Laws and Regulations (L&R) Committee
2023 Interim Meeting Report

Mr. Doug Rathbun, Committee Chair
Illinois

INTRODUCTION

The L&R Committee (hereinafter referred to as the "Committee") submits this Committee Interim Report for consideration by National Conference on Weights and Measures (NCWM). This report contains the items discussed and actions proposed by the Committee during the January Interim Meeting. The report will address the items in Table A during the Interim Meeting. Table A identifies the agenda items by reference key, title of item, page number and the appendices by appendix designations. The acronyms for organizations and technical terms used throughout the agenda are identified in Table B. The headings and subjects apply to NIST Handbook 130, "Uniform Laws and Regulations in the Areas of Legal Metrology an Engine Fuel Quality," and NIST Handbook 133, "Checking the Net Contents of Packaged Goods." The first three letters of an item's reference key are assigned from the Subject Series List. The status of each item contained in the report is designated as one of the following: **(D) Developing Item:** the Committee determined the item has merit; however, the item was returned to the submitter or other designated party for further development before any action can be taken at the national level; **(A) Assigned Item:** the committee has assigned development of the item to a recognized subcommittee or task group within NCWM. **(I) Informational Item:** the item is under consideration by the Committee but not proposed for Voting; **(V) Voting Item:** the committee is making recommendations requiring a vote by the active members of NCWM; **(W) Withdrawn Item:** the item has been removed from consideration by the Committee.

Some Voting Items are considered individually; others may be grouped in a consent calendar. Consent calendar items are Voting Items that the Committee has assembled as a single Voting Item during their deliberation after the Open Hearings on the assumption that the items are without opposition and will not require discussion. The Voting Items that have been grouped into consent calendar items will be listed on the addendum sheets. Prior to adoption of the consent calendar, the Committee will remove specific items from the consent calendar upon request to be discussed and voted upon individually.

Committees may change the status designation of agenda items (Developing, Informational, Assigned, Voting and Withdrawn) up until the report is adopted, except those items which are marked Developing, Informational, Assigned or Withdrawn cannot be changed to Voting Status. Any change from the Committee Interim Report (as contained in this publication) or from what appears on the addendum sheets will be explained to the attendees prior to a motion and will be acted upon by the active members of NCWM prior to calling for the vote.

An "Item under Consideration" is a statement of proposal and not necessarily a recommendation of the Committee. Suggested revisions are shown in **bold face print** by ~~**striking out**~~ information to be deleted and **<u>underlining</u>** information to be added. Requirements that are proposed to be nonretroactive are printed in ***bold faced italics***. Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.com/publication-16 to review these documents.

All sessions are open to registered attendees of the conference. If the Committee must discuss any issue that involves proprietary information or other confidential material; that portion of the session dealing with the special issue may be closed if (1) the Chairman or, in his absence, the Chairman-Elect approves; (2) the Executive Director is notified; and (3) an announcement of the closed meeting is posted on or near the door to the meeting session and at the registration desk. If possible, the posting will be done at least a day prior to the planned closed session.

Note: It is policy to use metric units of measurement in publications; however, recommendations received by NCWM technical committees and regional weights and measures associations have been printed in this publication as submitted. Therefore, the report may contain references to inch-pound units.

Subject Series List

Table A
Table of Contents

Table B
Glossary of Acronyms and Terms

Acronym	Term	Acronym	Term
ASTM	ASTM International	NEWMA	Northeastern Weights and Measures Association
API	American Petroleum Institute	NIST	National Institute of Standards and Technology
CFR	Code of Federal Regulations	NCWM	National Conference on Weights and Measures
CWMA	Central Weights and Measures Association	OWM	Office of Weights and Measures
FALS	Fuels and Lubricants Subcommittee	PALS	Packaging and Labeling Subcommittee
FDA	Food and Drug Administration	S&T	Specifications and Tolerances
FTC	Federal Trade Commission	SAE	SAE International
HB	Handbook	SWMA	Southern Weights and Measures Association
ILMA	Independent Lubricant Manufacturers Association	UPLR	Uniform Packaging and Labeling Regulation
L&R	Laws and Regulations	USDA – FSIS	U.S. Department of Agriculture – Food Safety and Inspection Service
LPG	Liquefied Petroleum Gas	USNWG	U.S. National Work Group
MAV	Maximum Allowable Variation	WWMA	Western Weights and Measures Association

Details of All Items
(In order by Reference Key)

WML – UNIFORM WEIGHMASTER LAW

WML-23.1 V Section 10. Certificate: Required Entries.

Source:
NIST Office of Weights and Measures

Purpose:
Allow the use of electronic signatures on certificates.

Item Under Consideration:
Amend Handbook 130, Uniform Weighmaster Law, as follows:

Section 10. Certificate: Required Entries

(a) The certificate, when properly filled out and signed [**see Section 10, Note 2**] shall be prima facie evidence of the accuracy of the measurements shown.

(b) The design of and the information to be furnished on a weight certificate shall be prescribed by the Director and will include, but not be limited to, the following:

(1) the name and license number of the public weighmaster;

(2) the kind of commodity weighed, measured, or counted;

(3) the name of the owner, agent, or consignee of the commodity;

(4) the name of the recipient of the commodity, if applicable;

(5) the date the certificate is issued;

(6) the consecutive number of the certificate;

(7) the identification, including the identification number, if any, of the carrier transporting the commodity and the identification number or license number of the vehicle;

(8) other information needed to distinguish or identify the commodity from a like kind;

(9) the number of units of the commodity, if applicable;

(10) the measure of the commodity, if applicable;

(11) the weight [see Section 10 NOTE 1] of the commodity and the vehicle or container (if applicable) broken down as follows:

i. the gross weight of the commodity and the associated vehicle or container;

ii. the tare weight of the unladen vehicle or container; or

iii. both the gross and tare weight and the resultant net weight of the commodity;

(12) signature [**see Section 10, Note 2**] of the public weighmaster who determined the weight, measure, or count.

Section 10 NOTE 1: When used in this Law, the term "weight" means "mass." (See paragraph L. "Mass" and "Weight" in Section I. Introduction, of NIST Handbook 130 for an explanation of these terms.)

(Note added 1993)

Section 10 NOTE 2: Electronic signatures are acceptable if a State has a statute that allows for digital or electronic signatures (Uniform Law Commission, Electronic Transactions Act {UETA} www.uniformlaws.org)
(Added 20XX)

Previous Action:
2023: New Item

Original Justification:

The Uniform Weighmaster Law (UWL) is broadly worded that it does not specify whether cursive or other handwriting be used to sign tickets. Section 10. "Certificate: Required Entries," of the UWL reads that a weigh ticket, when properly filled out and signed, shall be accepted as evidence of the accuracy of the recorded measurement. A full identification of the weighmaster is required by Section 10(b)(1) that requires the name and license number of the weighmaster be furnished and Section (10)(b)(12) requires that signature to be of the public weighmaster who determined the weight, measure or count.

OWM has reviewed the UWL, NCWM Annual Meeting Reports, and information provided by other states and recommends that Section 10 allow the use of electronic signatures. Another justification for allowing the use of electronic signatures is they are widely permitted under both Federal and State Laws. At the Federal level the 2000 Electronic Signatures in Global and National Commerce Act which is in 15 U.S. Code § 7001 provides that electronic signatures on contracts, or other records relating to such transactions may not be denied legal effect, validity, or enforceability solely because they are in electronic form.

OWM has also learned that most states adopt the Uniform Electronic Transactions Act (UETA www.uniformlaws.org) which promotes the use of electronic signatures and provides adequate protections for buyers and sellers alike. While both the Federal and State exempt some business and applications the purpose of these laws is to prevent fraud and abuse while facilitating the use of electronic signatures to promote modern business and communications practices. The UETA was developed by the National Conference of Commissioners on Uniform Laws in 1999 to establish the legal equivalence of electronic records and signatures with paper writings and manually signed signatures, to remove barriers to electronic commerce. There are 47 and the District of Columbia, U.S. Virgin Islands, Puerto Rico which have adopted the UETA. Three states have not adopted UETA but do have their own state statues - New York, Illinois, and Washington.

Requested Status by Submitter: Voting Item

Comments in Favor:

Regulatory:

- Dr. Matt Curran, Florida suggested a "semantics" change to section 10 note 2, digital signature statute because some states may not refer to their statute enabling digital signatures in the same manner originally specified in the proposal ("digital signature statute").

- Mr. Kevin Schnepp, California stood in support of the item stating it was fully developed. He also suggested referencing a national standard for uniformity.

Advisory:

- Mr. David Sefcik, NIST OWM stated this item is fully developed and it just calls out that if you have the authority in a state, you should use it.

Comments Against:

Regulatory:

- None

Industry:

- None

Advisory:

- None

Neutral Comments:

Regulatory:

- None

Industry:

- None

Advisory:

- None

Item Development:

NCWM 2023 Interim Meeting: The Committee modified the item to address the concern expressed by Dr. Matthew Curran during the open hearings regarding a "semantics" change to section 10 note 2, digital signature statute because some states may not refer to their statute enabling digital signatures in the same manner originally specified in the proposal. He suggested using a more generic version; "if a State has a statute that allows for digital or electronic signatures". The Committee assigned Voting status as it is fully developed after that change.

Regional Associations' Comments:

WWMA 2022 Annual Meeting: Mr. Kevin Schnepp, CDFA/DMS, supports this item moving forward provided a national security standard be developed to limit potential fraud. Mr. Kurt Floren, LA County, asked whether a security standard should be developed locally rather than nationally. Mr. Schnepp suggested a national standard for uniformity would be most appropriate.

The WWMA L&R Committee recommends Voting status based on the comments heard.

SWMA 2022 Annual Meeting: Dr. Matthew Curran (Florida) commented that he was fine with the intent, especially in the age of digital signatures. He recommended that Section 10 Note 2 needed a semantic change to allow it to be broader and suggested the following change "statue that includes digital signatures"

Ms. Lisa Warfield (NIST OWM) commented that this item had been previously brought forward several years ago, but this editorial change wasn't included in the handbooks. All but three states adopt the Uniform Electronic Transaction Act.

Mr. Hal Prince (Florida) commented that Florida does not adopt WAM law since it doesn't affect them. He believes this is a state issue and should not be in the handbook and would like the item to be withdrawn.

The Committee concurred with Dr. Curran's comment.
SWMA L&R Committee moves the following modified language forward:

Section 10 NOTE 2: Electronic signatures are acceptable if a State has a statute that allows for digital and/or electronic signatures (Uniform Law Commission, Electronic Transactions Act {UETA} www.uniformlaws.org)
(Added 20XX)

With these changes the Committee considers this item fully developed and recommends it as a voting item.

CWMA 2022 Interim Meeting: No comments were heard on this item. The Committee believes this item is fully developed and ready for voting status.

NEWMA 2022 Interim Meeting: Lisa Warfield, NIST Technical Advisor commented at the 2022 NEWMA Interim Meeting that this modification is adding a "note" to Section 10 of the Weights and Measures Law which recognizes electronic signatures. OWM has learned that most states adopt the Uniform Electronic Transactions Act (UETA) which promotes the use of electronic signatures. She indicated 47 states, the District of Columbia, U.S. Virgin Islands and Puerto Rico have adopted the UETA. The remaining three states – New York, Illinois and Washington have their own state statutes recognizing electronic signatures. John McGuire, New Jersey, commented that the State of New Jersey has seen an increase in fraudulent certificates issued through weighmasters. He further indicated that the state is reviewing their requirements to determine if additional or different requirements are needed. Cheryl Ayer, New Hampshire expressed concern that enforcement is difficult but supports the item moving forward as a voting item. Walt Remmert, Pennsylvania agreed and supports the item as a voting item. Marc Paquette, Vermont also supports the proposal as a voting item as does Jimmy Cassidy, Massachusetts. The Committee recommending Voting status for this item.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.com/publication-15 to review these documents.

MOS – UNIFORM REGULATION FOR THE METHOD OF SALE OF COMMODITIES

MOS-23.3 V Section 1.12. Ready-to-Eat Food, 1.12.2. Methods of Sale.

Source:
Delaware Weights and Measures

Purpose:
Bringing back the word "***single*** serving" to limit the size of a prepackaged item from being allowed to be sold with no weight declaration.

Item under Consideration:
Amend Handbook 130 Uniform Regulation for the Method of Sale of Commodities as follows:

1.12. Ready-to-Eat Food.

…

1.12.2. Methods of Sale. – Ready-to-eat food sold from retail cases displaying product in bulk or in servings ~~**packed or**~~ prepared on the premises may be sold by weight, measure, or count (i.e., by piece, portion, or serving). If pre-packaged, the product shall have the appropriate statement of quantity set forth in the current edition of NIST Handbook 130, Uniform Packaging and Labeling Regulation (UPLR).
(Amended 1993) (Amended 2017)

Previous Action:
New item in 2023

Original Justification:
When the change was initially introduced in the 2018 edition of Handbook 130, the way I interpreted the new regulation was that with the removal of "**single servings**" it would then allow any package that is packaged on premises to be sold by count. With that being said, it would mean that anything in the store (packaged on site) that is ready to eat would no longer be required to have a net weight. This would apply to all Deli, Hot Foods, Produce, Bakery and Seafood packaged products. Several others that I spoke with interpreted the regulation the same way I did initially. A year later, while taking a class in Gaithersburg, I brought up this issue and I was pointed to the second portion of the regulation that states: **If pre-packaged, the product shall have the appropriate statement of quantity set forth in the current edition of NIST Handbook 130, Uniform Packaging and Labeling Regulation (UPLR).** I had difficulty finding something specific in the UPLR that would override the statement **"in servings packed or prepared on the premises may be sold by weight, measure, or count"**, and at this point it became confusing if we should require a net weight on a pre-packaged item or not. More recently while taking a webinar, again I brought up this issue and the discussion was that the store would not need to put a net weight on the package. They could sell a tub of cut fruit as a "tub" of cut fruit.

I believe that the intent was to allow Grocery Stores to sell products like Restaurants, such as a bucket of chicken at KFC needs no net weight, so it should be allowed that the Grocery Store should be able to sell a bucket of chicken with no net weight. This is understandable if the bucket is packaged at time of service from bulk, but if it is a bucket that is pre-packaged sitting on a shelf for the consumer to purchase, then it should have a net weight. Similar packages of Potato Salad that the store packages sitting next to a "National Brand" of Potato Salad should also have a net weight so the consumer can make a comparative value decision. Another example would be pre-packaged containers of cut fruit should have a net weight so the consumer can compare the price of the processed fruit over what the consumer could purchase the same fruit themselves and cut it at home.

In the past, the single serving size exception was a good way to define what needed a net weight and what didn't. A slice of cake didn't need a weight, but a ¼ slice or larger would need a net weight. Two cookies in a baggie or a sandwich wouldn't need a weight, but a box of cookies or a platter of sandwiches would. I am afraid that if the correct interpretation is, that all ready to eat food that does not need to be processed and is pre-packaged on site will not need a net weight. If true, it removes the ability of the consumer to make an informed decision on what is the best value.

The picture above is at an Acme location and the items shown are packaged on premises. The picture below is at a Shop Rite location and those items are pre-packaged and shipped in. If Acme is allowed to sell items by count only,

but the items sold at Shop Rite must be sold by weight, then how can the consumer make a comparison as to which item is a better value.

The submitter acknowledges that businesses that are currently not putting a net weight on their ready to eat items larger than single serving sizes will have to correct their product labels to show the net weight. This may also result in having to install new scales to produce product labels.

The submitter requested that this be a Voting item in 2023.

Comments in Favor:

Regulatory:

- Mr. Robert Huff, Delaware stated that MOS 23.3 Method of sale of an item if prepackaged shall be appropriately labeled with a net weight. He stated that every single package could be labeled as restaurant style food. He used cereal and bowl of fruit as examples. He further stated whole chicken/whole pizza are not a single serving and single serving is subjective.

  He suggested that we should look at Purdue package and determine what is a serving size. Allowing items like this to be sold without a net weight is not in the best interest of the consumer.

  Mr. Huff supported Mr. Floren's proposed change.

- Mr. Kurt Floren, County of Los Angeles stated he was opposed and agrees with Mr. Minnich's comments. He used chicken as an example, focusing on restaurant style and used a bucket of chicken as an example of not being a single serving. He suggested if "packed or" was removed from the existing language he would be in support of the item.

- Hal Prince, Florida said he would support the item with Mr. Floren's proposed change.

Industry:

- None

Advisory:

- None

Comments Against:

Regulatory:

- Mr. Jim Willis, New York did not support the item.
- Doug Rathbun, Illinois opposed the item.

Industry:

- None

Advisory:

- None

Neutral Comments:

Regulatory:

- Mr. Loren Minnich, Kansas, disagreed with Delaware, and stated that a single serving is extremely subjective. We could provide clarification but adding single serving isn't the way.

Industry:

- None

Advisory:

None

Item Development

NCWM 2023 Interim Meeting: The Committee heard both support and opposition for this item, but believed much of the opposition was addressed with Mr. Floren's proposed change and assigned Voting status to this item. The Committee removed "packed or" from the existing language as suggested by Mr. Floren; the Committee believes this change better clarifies the intent of the requirement.

Regional Associations' Comments:

WWMA 2022 Annual Meeting: Mr. Floren, LA County, felt this was a misguided proposal. He believes that the existing wording of 'if prepackaged' already addresses the issue. Mr. David Sefcik, NIST OWM, described that in a 2017 task group, 14 regulators and 7 industry members worked out this regulation in the first place, and that adding the word 'single serving' would make the regulations too onerous. This item is supposed to allow grocery store prepared food similar to what you would buy at a restaurant to be under the same regulations as a restaurant. By adding the word 'single' serving it would require weight statements on items such as large pizzas or buckets of chicken wings, which were meant to be excluded.

As the WWMA L&R Committee heard no comments in support of this item, we recommend the item be withdrawn.

SWMA 2022 Annual Meeting: The Committee heard various comments in favor and against this item. Ms. Lisa Warfield (NIST OWM) recommended that this item be withdrawn since it had been previously and extensively vetted by the "Ready to Eat Foods" task group. Hal Prince (Florida) also recommended that this item be withdrawn but did concede that there will always be a gray area and doesn't know if there is a better way – possibly reconvene a task group.

Mr. Tim Chesser (Arkansas) commented that he could see the confusion of how "Ready to Eat" food is currently defined (and interpreted). While he feels that this is a jurisdictional issue, he would like this item to be considered.

Robert Huff (Delaware), who submitted the item, clarified the intent of the addition of "single" which was to allow the consumer to make a value comparison.

While the Committee agrees that value comparison is important, adding the word "single" would not solve this issue since the quantity of a single serving or portion varies among businesses. In addition, the committee recognizes that the intent of the submission has merit, the language as proposed would not solve the presented issue and in turn would cause more confusion and other unintended consequences (i.e., excluding whole chicken, pizza, and ribs). The Committee recommends that this item be withdrawn.

CWMA 2022 Interim Meeting: Loren Minnich, Kansas commented this item has been considered in the past and believes it is a difficult subject for model language and enforcement purposes. He believes this item focuses on equity between places that prepare food for families such as a grocery store compared to a retail restaurant. He opposes the item because with the proposed language addition, the item only covers single serving. Ivan Hankins, Iowa does not oppose it being a change to cover a single serving. However, he does not support the word "may" and believes the item needs to be further developed. Mr. Minnich further questioned how to identify the term "single serving". Hearing both objections and support for the item, and reviewing the proposed change, the Committee concurs this item is fully developed and is ready for voting status.

NEWMA 2022 Interim Meeting: During the 2022 NEWMA Interim Meeting Lisa Warfield, NIST Technical Advisor commented that there were typos in the title and the slash should be a dot as such: **Section 1.12. Ready-to-Eat Food, 1/.12.2. Methods of Sale**. OWM does not believe this item has merit and believes it should be withdrawn. In 2016 a Ready to Eat Task Group was chaired by OWM and was comprised of 14 regulatory officials and seven 7 industry (including Walmart, Whole foods, Publix, Giant) and trade association representatives (Food Marketing Inst. And NJ Food Council). The method of sale and definition of "ready-to-eat" was significantly vetted prior to its last modification in 2018. Ms. Warfield further stated that the definition of "ready-to-eat" only applies to restaurant food. Adding the word "single" eliminates such items as chicken and pizza. Jimmy Cassidy, Massachusetts; Steve Timar, New York; and John McGuire, New Jersey all support the item be withdrawn. Chair Sakin agrees. The Committee recommends the item be withdrawn from the agenda.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.com/publication-15 to review these documents.

MOS-20.5 V Section 2.21. Liquefied Petroleum Gas

Source:
Arizona Department of Agriculture, Weights and Measures Services Division

Purpose:
Provide clarity and consistency regarding the method of sale (MOS) for liquefied petroleum gas (LPG) through a meter that has a maximum rated capacity of 20 gal/min or less.

Item Under Consideration:
Amend Handbook 130, Uniform Regulation for the Method of Sale of Commodities, as follows:

2.21. Liquefied Petroleum Gas.

2.21.1. Method of Sale. All liquefied petroleum gas, including, but not limited to propane, butane, and mixtures thereof, shall be kept, offered, exposed for sale, or sold by the **following methods of sale. If kept, offered, exposed for sale, or sold by:**

(a) Weight: by the **kilogram** or pound; or by,

(b) Gaseous Volume: by the metered cubic meter of vapor (defined as 1 m^3 at 15 °C); or metered cubic foot of vapor (defined as 1 ft^3 at 60 °F) [See *Section 2.21. Note*]; or by,

(c) Liquid Volume: **by the liter (defined as 1 liter at 15 °C) or** the gallon (defined as 231 in^3 at 60 °F). ~~**All metered sales by the or gallon, except those using meters with a maximum rated capacity of (20 gal)/min or less, shall be accomplished by use of a meter and device that automatically compensates for temperature**~~.

2.21.2. Metered Sales by Liquid Volume. All metered sales by liquid volume shall be accomplished using metering systems as follows:

(a) Sales using metering systems with a maximum rated capacity greater than 20 gal/min shall be accomplished using a metering system that automatically compensates for the effects of temperature.

(b) Sales using metering systems with a maximum rated capacity equal to or less than 20 gal/min that were placed into service after January 1, 2026 shall be accomplished by use of a metering system that automatically compensates for the effects of temperature.

(c) Effective January 1, 2030, all metered sales (through all capacities of metering devices, regardless of installation and service date) shall be accomplished by use of a metering system that automatically compensates for temperature.

Section 2.21. NOTE: Sources: ~~American National Standards Institute, Inc.,~~ ANSI B109.1 (~~2008~~2000), "~~American National Standard~~ For Diaphragm-Type Gas Displacement Meters (~~14.16 Cubic Meters [~~Under 500 Cubic Feet~~]~~ Per Hour Capacity ~~and Under~~)," and NIST Handbook 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices."

(Added 1986**, Amended 20XX**)

Previous Action:

2020: Informational

2021: Voting - Returned to Committee

2022 Annual Meeting: Voting – Returned to Committee

Original Justification:

There appears to be a lack of clarity and consistency regarding the method of sale (MOS) for liquefied petroleum gas (LPG) through a meter that has a maximum rated capacity of 20 gal/min or less. The Uniform Regulation for the Method of Sale of Commodities, Section 2.2. Liquified Petroleum Gas specifically exempts these meters from the use of automatic temperature compensation but defines a gallon as 231 in^3 at 60 °F [15.6 °C].

With this definition, it can be interpreted that, while automatic temperature compensation is not required, the sale of LPG shall be temperature compensated through manual means (or alternatively sold by weight). Temperature compensation manually requires the use temperature readings and a chart to manually perform conversions to determine the volume sold.

When discussing potential implementation of these requirements, propane industry officials in Arizona noted that other states do not require sale of LPG through these smaller meters to be temperature compensated or sold by weight and cited numerous problems with manual calibration or changing the MOS to sell by weight.

An informal survey of western states appears to support that most do not enforce this requirement to sell LPG through these smaller meters by weight or temperature compensated.

Due to the inconsistency with the method of sale between various states and interpretation of this section, it is being proposed to exempt the sale of LPG through these smaller meters from temperature compensation.

The item is proposed developing to allow for discussion and submittal of supporting cost analysis and impact to consumers and businesses that supports a requirement to sell LPG through these small meters as temperature compensated (or by weight).

The submitter noted that the sale of propane that is not temperature compensated can vary in quantities dispensed, which may provide a business or consumer with more or less product than stated.

Comments in Favor:

Regulatory:

- Mr. Scott Simmons, Colorado stated fully developed and move forward as a voting item.
- Mr. Kevin Schnepp, California supported this item as voting.
- Mr. John McGuire, New Jersey expressed support for the item.
- Mr. Vince Wolpert, Arizona provided testimony in support of this item.

  Mr. Wolpert stated that there appears to be some confusion regarding when temperature compensation is required. He also stated that this item has been around for a long time.

  Mr. Wolpert also reminded the group that past L&R Committees have been strongly committed to automatic compensation. Not compensating for temperature affects the consumer. Currently, although it is required, no one is manually compensating when the sale does not use a meter that performs automatic temperature compensation. Mr. Wolpert shared that U-Haul and the National Propane Gas Association support automatic compensation for sales using meters under 20 gal/min.

- Mr. Doug Rathbun, Illinois, supported this item and stated that he did not understand why it has not passed.

Industry:

- None

Advisory:

- None

Comments Against:

Regulatory:

- Mr. Jim Willis, New York testified that New York allows the service charge for filling a small bottle (under 20 lbs.). He questions the accuracy of the test with compensation at values of 20 lb or less when the compensation kicks in. He stated that New York is opposed to this item.

Industry:

- None

Advisory:

- None

Neutral Comments:

Regulatory:

- None

Industry:

- None

Advisory:

- None

Item Development:

NCWM 2020 Interim Meeting: Mr. Tim Chesser (AR) felt that the current proposal conflicts with language in Handbook 44. Ms. Tina Butcher (NIST OWM) responded the current language in Handbook 44 does not conflict with the language in this item, referencing language from Handbook 44 stating "If a device is equipped with an automatic temperature compensator." This suggests that language in Handbook 44 does not require modification to accommodate devices with automatic temperature compensation capabilities. Mr. Constantine Cotsoradis (Flint Hill Resources) questioned if this proposal would have any benefit for consumers. Representing the submitter, Mr. Vince Wolpert (AZ) stated that temperature in the state ranges from 32 to 100 degrees Fahrenheit and volume delivered for LP sales varies accordingly.

As a result of the lack of consistency with volume delivered the state receives a lot of complaints concerning LP sales. Several regulators commented that the most equitable way to address the issue is to require automatic temperature compensation for all sales. The original submitter received feedback from the fall regions and modified the language (dated January 24, 2020).

The submitter, Ms. Wilson recommended this modified language be vetted through the regional meetings and industry for consideration. Currently, the Committee concurs with the recommendation and moved this item forward as the Item Under Consideration as Informational.

On the 2020 NCWM Interim Agenda the item under consideration appeared as:

> **2.21. Liquefied Petroleum Gas.** – All liquefied petroleum gas, including, but not limited to propane, butane, and mixtures thereof, shall be kept, offered, exposed for sale, or sold by the pound, metered cubic foot [***NOTE 7***, page 132] of vapor (defined as 1 ft3 at 60 °F [15.6 °C]), or the gallon (defined as 231 in3 at 60 °F [15.6 °C]). All metered sales by the gallon, except those using meters with a maximum rated capacity of 20 gal/min or less, shall be accomplished by use of a meter and device that automatically compensates for temperature. **Metered sales using a meter with a maximum rated capacity of 20 gal/min or less is exempt from temperature compensation requirements.**
> (Added 1986 **Amended 20XX)**

NCWM 2021 Interim Meeting: The language within NCWM Publication 15 appeared as:

2.21. Liquefied Petroleum Gas. – All liquefied petroleum gas, including, but not limited to propane, butane, and mixtures thereof, shall be kept, offered, exposed for sale, or sold by the pound, metered cubic foot [***NOTE 7***, page 132] of vapor (defined as 1 ft^3 at 60 °F [15.6 °C]), or the gallon (defined as 231 in^3 at 60 °F [15.6 °C]). ~~**All metered sales by the gallon, except those using meters with a maximum rated capacity of 20 gal/min or less, shall be accomplished by use of a meter and device that automatically compensates for temperature.**~~

(a) All metered sales by the gallon using a meter with a maximum rated capacity greater than 20 gal/min, shall be accomplished using a meter and device that automatically compensates for temperature.

(b) For equipment placed in service on or after January 1, 2023, all metered sales using a meter with a maximum rated capacity of 20 gal/min or less shall be accomplished by use of a meter and device that automatically compensates for temperature.

(c) Effective January 1, 2030, all metered sales shall be accomplished by use of a meter and device that automatically compensates for temperature.

(Added 1986 **Amended 20XX)**

Mr. Chesser commented his concern with conflicts between the method of sale and Handbook 44 requirements. Ms. Tina Butcher (NIST OWM) addressed questions that were stated within the reporting for this item. Ms. Butcher also provided an in-depth background and discussion on this item. It was noted that NIST OWM submitted modified language that was posted under the NCWM L&R supporting documents.

Some of the bullet points that were in the NIST analysis of this item were:

- The existing language references a value of "15.6 °C" for temperature determinations in metric units, according to the current industry practice for sales of petroleum products, the reference temperature for sales in metric are based on 15 °C rather than the exact conversion from 60 °F (which is 15.6 °C). Thus, the temperature reference in metric should be 15 °C.
- The current method of sale for LPG requires sales based on a specified reference temperature because of the significant effects of temperature on the volume of LPG. This helps ensure equity for buyer and seller; facilitate value comparisons among competing applications; and deter those who would take advantage of the effects of temperature on volume from using these effects to their advantage during sales under given temperature conditions.
- There is some concern that including effective dates as shown in the Item Under Consideration does have the effect of rescinding the original requirement for certain categories of sales. Additionally, specifying such dates may possibly lead to future extensions of these date or permanent exceptions. However, if this proposal will allow the community to progress toward more uniform implementation of temperature compensation in the commercial measurement of LPG, this approach may prove to be a valuable tool for accomplishing this goal and improve understanding and consistent application of the requirements, and we believe the submitter is to be commended for striving to achieve this clarity and uniformity in application.
- The second clause of the current Item Under Consideration addresses equipment put into service as of January 1, 2023. The generic reference to "equipment placed into service" implies that only newly installed equipment with flow rates of 20 gpm or less needs to include automatic temperature compensation capabilities. This could be misconstrued as negating the first clause in the proposal. We believe the intent of the submitter was to simply expand the requirement for "automatic" temperature compensation capability for metering systems above 20 gpm to include those systems below this flow rate point. Thus, a recommended alternative is included in the suggested changes.

Formatting Changes:

- By formatting the language into sub-sections, it makes the method of sale requirement easier to follow and apply and facilitates consideration of the Item Under Consideration.
- For the next released edition of Handbook 130, NIST OWM will be reformatting the references to "Notes" and their associated page numbers and replacing these with notes formatted as "Section ##. Note."

Mr. Scott Simmons (Colorado) led a discussion regarding some of the issues that his state has faced regarding LPG sales. Mr. Simmons and many other regulators expressed support for this Item. It was expressed that many were unaware of the NIST modified proposal. L&R Chair McGuire encouraged membership to review the NIST proposal. During the Committee work session both the original and NIST proposals were discussed. A Committee member expressed concern that industry may be unaware of this agenda item. Several Committee members commented that they would reach out to their industry contacts to alert them. The Committee heard many comments that they supported the NIST proposal. The Committee was appreciative that NIST had reformatted the structure to make the language easier to read. The Committee recommends this move forward as a Voting item.

NCWM 2021 Annual Meeting: Mr. Swiecicki (NPGA) expressed concern with the language for temperature compensation and how the mechanical devices have a lag in correcting the temperature. Mr. Swiecicki did request that the date in Section 2.21.2.(b) be moved to 2025, or at least another year added. Mr. Schnepp (CA) remarked that in Section 2.21.2.(a) the language should read "equal to or greater than" to align with NIST HB44 language. Mr. Allen (AZ) was supportive of the changes from Mr. Schnepp. Mr. Willis (NY) rose to oppose this item and believes this item is detrimental to the propone industry. Mr. Willis remarked that they are done by weight and the temperature compensation is an issue with the smaller tanks. Mr. Ramsburg (MD) asked the committee to withdraw the item.

Based on testimony during open hearings and reviewing the documents from the regional meetings, the Committee changed the effective date in Section 2.21.2.(b) from January 1, 2023 until January 1, 2024. In Sections 2.21.2. (a), (b) and (c) replaced the words "meter and device" with "metering system." The Committee concurred with Mr. Schnepp's recommendation to modify the language in Section 2.21.2.(a) to replace the words "greater than or equal to" with "equal to or greater than". This item did appear as a Voting Item at the 2021 NCWM Annual Meeting but did not garner enough votes, it was therefore returned to the Committee.

NCWM 2022 Interim Meeting: The Committee assigned Voting status for this item at the 2022 Interim Meeting and extended the effective dates to address concerns expressed during the open hearings.

The Committee assigned Voting status to this item because there was support for it and only one regulator spoke against it. Additionally, the National Propane Gas Association supported the item provided the effective dates were extended. The Committee made this change.

NCWM 2022 Annual Meeting: This item was returned to Committee. Based on a comment from a weight and measures official during the open hearings at the 2022 Annual Meeting, the Committee amended the title in Section 2.21.1. (c) to read "Liquid Volume".

During the July 2022 Annual Meeting the Committee included this item in the Consent Calendar but it was removed during the voting session upon request by membership. There was no discussion on the item during the voting and it failed to receive the necessary 27 votes to pass and was returned to Committee.

This is the second time this item has been presented for a vote before membership and returned to the Committee. Membership is split between whether there is a need for a temperature compensator on meters of 20 gallons or less. The committee believes this item is fully developed and no addition work is needed.

NCWM 2023 Interim Meeting: The Committee hearing mostly support for the item and believing it is fully developed assigned Voting status to it.

The Committee notes that temperature compensation has always been required while, currently, automatic temperature compensation is only required for sales using meters rated greater than 20 gpm. The Committee discussed whether to require only electronic temperature compensation devices but decided not to specify the type of automatic temperature compensation device to be used.

Regional Associations' Comments:

WWMA 2022 Annual Meeting: Mr. Scott Simmons, Colorado believes that the method of sale needs to be fixed, apply the standards we already have in a consistent manner. Mr. Kevin Schnepp, CDFA/DMS, supports this item moving forward.

The WWMA L&R Committee recommends Voting status based on the comments heard.

SWMA 2022 Annual Meeting: Ms. Lisa Warfield (NIST OWM) stated that this item has not garnered enough votes to get through the conference twice, but NIST has reformatted for clarity. Respectfully, NIST requests that the new format moves forward while also soliciting commentary to understand why the modified language stalled.

Ken Ramsburg (Maryland) inquired if section (b) of 2.21.1. should be moved somewhere else in the handbook. This is a carryover item returned to the National L&R Committee from the voting session in the NCWM Annual meeting. The Committee didn't receive comments in favor or against it during the open hearings. The Committee believes the item is fully developed and recommend moving forward as a Voting Item with the following editor change to section 2.2.1.1. Method of Sale.

> **2.21.1. Method of Sale.** □ All liquefied petroleum gas, including, but not limited to propane, butane, and mixtures thereof, shall be kept, offered, exposed for sale, or sold by the **following methods of sale. ~~If kept, offered, exposed for sale, or sold by~~:**

CWMA 2022 Interim Meeting: Loren Minnich, Kansas commented he has no opinion on the content of the item, but the formatting of the proposal should be bolded and underlined after section 2.21 (see below). Ivan Hankins, Iowa expressed support for putting temperature compensators on any LPG meter with a maximum rated capacity of 20 gal/min or less. He believes six years as indicated in item 2.21.2.(c) is too long of an implementation time. Doug Rathbun, Illinois concurs with Mr. Hankins. After discussion, the Committee agreed with Mr. Minnich's formatting suggestion and concurred the item is fully developed and ready for voting status.

2.21. Liquefied Petroleum Gas.

2.21.1. Method of Sale. All liquefied petroleum gas, including, but not limited to propane, butane, and mixtures thereof, shall be kept, offered, exposed for sale, or sold by the following methods of sale. If kept, offered, exposed for sale, or sold by:

(a) Weight: by the kilogram or pound; or by,

(b) Gaseous Volume: by the metered cubic meter of vapor (defined as 1 m^3 at 15 °C); or metered cubic foot of vapor (defined as 1 ft^3 at 60 °F) [See *Section 2.21. Note*]; or by,

(c) Liquid Volume: by the liter (defined as 1 liter at 15 °C) or the gallon (defined as 231 in^3 at 60 °F). ~~All metered sales by the or gallon, except those using meters with a maximum rated capacity of (20 gal)/min or less, shall be accomplished by use of a meter and device that automatically compensates for temperature~~.

2.21.2. Metered Sales by Liquid Volume. All metered sales by liquid volume shall be accomplished using metering systems as follows:

(a) Sales using metering systems with a maximum rated capacity greater than 20 gal/min shall be accomplished using a metering system that automatically compensates for the effects of temperature.

(b) Sales using metering systems with a maximum rated capacity equal to or less than 20 gal/min that were placed into service after January 1, 2026 shall be accomplished by use of a metering system that automatically compensates for the effects of temperature.

(c) Effective January 1, 2030, all metered sales (through all capacities of metering devices, regardless of installation and service date) shall be accomplished by use of a metering system that automatically compensates for temperature.

Section 2.21. NOTE: Sources: ~~American National Standards Institute, Inc., ANSI B109.1 (20082000), "American National Standard~~ For Diaphragm-Type Gas Displacement Meters (~~14.16 Cubic Meters [~~Under 500 Cubic Feet] Per Hour Capacity ~~and Under~~), " and NIST Handbook 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices."

(Added 1986, Amended 20XX)

NEWMA 2022 Interim Meeting: At the 2022 NEWMA Interim Meeting Lisa Warfield, NIST Technical Advisor commented that if this language does not move forward, would the Committee consider the new format that provides clarity and is easier to read. If the item moves forward, OWM recommends that the Committee consider delaying the effective date in Section 2.21.2.(b). John McGuire, New Jersey supports this item and believes the item is fully developed and ready for voting status. Walt Remmert, Pennsylvania concurs as does Jimmy Cassidy, Massachusetts. Jim Willis, New York does not support this item as it is contrary to New York state laws. The Committee believes this item is fully developed and ready for voting status.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.com/publication-15 to review these documents.

MOS-23.4 V Retail Sales of Electricity Sold as a Vehicle Fuel.

Source:
NIST Office of Weights and Measures

Purpose:
Align the unit of measurement recognized for electrical energy vehicle fueling equipment in corresponding legal metrology requirements in NIST Handbook 44 *Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices* Section 3.40 Electric Vehicle Fueling Systems Code, NIST Handbook 130 *Uniform Laws and Regulations in the Areas of Legal Metrology and Fuel Quality* Part IV. B. Section 2.34 Retail Sales of Electricity Sold as a Vehicle Fuel, and corresponding international documentary standards.

Item under Consideration:

2.34. Retail Sales of Electricity Sold as a Vehicle Fuel.

…

2.34.2. Method of Sale. – All electrical energy kept, offered, or exposed for sale and sold at retail as a vehicle fuel shall be in units in terms of the ~~**megajoule (MJ) or**~~ kilowatt-hour (kWh). In addition to the fee assessed for the quantity of electrical energy sold, fees may be assessed for other services; such fees may be based on time measurement and/or a fixed fee.

(Amended 202X)

2.34.3. Retail Electric Vehicle Supply Equipment (EVSE) Labeling.

(a) A computing EVSE shall display the unit price in whole cents (e.g., $0.12) or tenths of one cent (e.g., $0.119) on the basis of price per ~~**megajoule (MJ) or**~~ kilowatt-hour (kWh). In cases where the electrical energy is unlimited or free of charge, this fact shall be clearly indicated in place of the unit price.

(Amended 202X)

…

2.34.4. Street Sign Prices and Other Advertisements. – Where electrical energy unit price information is presented on street signs or in advertising other than on EVSE:

(a) The electrical energy unit price shall be in terms of price per ~~**megajoule (MJ) or**~~ kilowatt-hour (kWh) in whole cents (e.g., $0.12) or tenths of one cent (e.g., $0.119). In cases where the electrical energy is unlimited or free of charge, this fact shall be clearly indicated in place of the unit price.

(Amended 202X)

Previous Action:
New item in 2023.

Original Justification:
In harmony with the USNWG's EVFE Subgroup 2022 recommendation deleting all references to the "megajoule" unit of measurement in the device handbook requirements, NIST OWM proposes similar modifications to the method of sale regulation for retail sales of electrical energy as a vehicle fuel. The joule unit of measurement is not in use for this commercial application. This proposal will align the unit of measurement recognized for electrical energy vehicle fueling equipment in corresponding legal metrology requirements in NIST Handbook 44 *Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices* Section 3.40 Electric Vehicle Fueling Systems Code, NIST Handbook 130 *Uniform Laws and Regulations in the Areas of Legal Metrology and Fuel Quality* Part IV. B. Section 2.34 Retail Sales of Electricity Sold as a Vehicle Fuel, and corresponding international documentary standards.

The 2022 National Conference on Weights and Measures (NCWM) adopted several initial modifications in the device handbook code requirements for Electric Vehicle Fueling Systems (aka EVSEs) to include removing the megajoule (MJ) SI unit. This modification was made in response to information received from the USNWG's EVFE Subgroup indicating this unit of measurement is not recognized for electrical energy in the SI system (i.e., OIML R 46 *Active electrical energy meters* and the yet to be published OIML electrical vehicle charging systems standard). During the 2023 weights and measures standards development cycle further modifications will be proposed by the EVFE Subgroup to remove all remaining references to the megajoule in the device requirements. To align the unit of measurements recognized for electrical energy vehicle fueling in corresponding legal metrology requirements in NIST Handbook 44 and NIST Handbook 130 NIST OWM has developed this proposal for modifying NIST Handbook 130 method of sale, equipment labeling, signage, and advertising requirements to delete all reference to the megajoule (MJ).

The submitter acknowledges that Removing the "megajoule (MJ)" unit of measurement from the handbook does not conform to the practice in place for applying the concept of primary use of SI (metric) measurements recommended in the Omnibus Trade and Competitiveness Act of 1988.

Following this practice, the handbooks cite the SI unit before the U.S. customary unit of measurement. Currently, the handbook code requirements which apply to measurements of electrical energy when sold as a vehicle fuel the requirement specify the megajoule followed by the kilowatt-hour (kWh). It appears the trade practice is limited to the kilowatt-hour. Consequently, it is recommended the megajoule no longer be referenced in all handbooks (130 and 44) for this commercial application and to harmonize with corresponding international standards where units of measurement are only expressed only in the kilowatt-hour.

The Joule does not appear to be in use as the unit for measuring the quantity of electrical energy supplied to an EV battery. Measurements of electrical energy will be in increments of 0.0001 kWh for AC systems and 0.001 kWh for DC fast charging systems. The conversion of a kilowatt-hour to a megajoule is accomplished by multiplying by a factor of 3.6 (i.e., 1 kWh = 3 600 000 J = 3 600 kJ = 3.6 MJ). Rather than advance indications of quantity in increments of 3.6 the code developers agreed to recognize an increment value for electrical energy when sold as a vehicle fuel expressed as 5 (or 5 MJ) in the handbooks, which is an increment that facilitates rounding and calculating delivery quantities and the total sale amount. The elimination of the use of the megajoule to require only indications in the kilowatt-hour unit of measurement does not appear to adversely affect any EVSEs in commercial use. Should the delivery, displayed quantity, and advertised price of electrical energy move to expressions of quantity by the joule the handbook could be modified to recognize that unit of measurement.

The submitter requested that this be a voting item in 2023.

Comments in Favor:

Regulatory:

- Mr. Kevin Schnepp, California, agreed that this item is necessary and harmonizes the information contained in HB 44. He is in support.

Industry:

- None

Advisory:

- Mr. David Sefcik, NIST OWM recommended that this item move forward as voting. He stated that megajoule as a unit of measurement does not apply for this commercial application and references to the megajoule should be removed.

Comments Against:

Regulatory:

- None

Industry:

- None

Advisory:

- None

Neutral Comments:

Regulatory:

- None

Industry:

- None

Advisory:
- None

Item Development:

NCWM 2023 Interim Meeting: The Committee, based on the NIST OWM analysis, considered the proposed item to be fully developed and assigned it voting status. The key points of the NIST OWM analysis were: megajoule as a unit of measurement does not apply for this commercial application and references to the megajoule should be removed, the proposal aligns the unit of measurement recognized for electrical energy vehicle fueling equipment in NIST Handbooks 44 and 130 by removing all reference to "joule."

Regional Associations' Comments:

WWMA 2022 Annual Meeting: Ms. Cadence Matijevich, Nevada Department of Agriculture, spoke in support of this item. We heard testimony that this item would harmonize NIST Handbook 130 with NIST Handbook 44. Mr. Kevin Schnepp, CDFA/DMS, supports this item moving forward.

The WWMA L&R Committee recommends Voting status based on the comments heard.

SWMA 2022 Annual Meeting: Ms. Lisa Warfield (NIST-OWM) commented that the megajoule (MJ) is not for use in the application and recommends aligning with the National workforce group to remove all megajoule references.

No other comments were received.

The Committees believes that this item is fully developed and recommends it as a Voting Item.

CWMA 2022 Interim Meeting: Craig Van Buren, Michigan indicated support for this item. He believes it is ready for voting status as it reflects changes suggested in subsequent meetings. Mike Harrington, Iowa also supports this item both in concept and as an item with voting status. Based on supportive testimony for this item and the desire to move it forward as a voting item, the Committee believes it is fully developed and ready for voting status.

NEWMA 2022 Interim Meeting: During the 2022 NEWMA Interim Meeting Lisa Warfield, NIST Technical Advisor commented the item number should be MOS-23.2. Juana Williams, NIST OWM, commented that this is a companion item to an S&T item where megajoule is being removed as a measurement term. John McGuire, New Jersey supports the item moving forward as a voting item, as does Jimmy Cassidy, Massachusetts and Jim Willis, New York. The Committee recommends this item move forward with voting status.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.com/publication-15 to review these documents.

UPR – UNIFORM UNIT PRICING REGULATION

UPR-23.1 V Section 2. Terms for Unit Pricing

Source:
Vermont Division of Food Safety & Consumer Protection Weights and Measures

Purpose:
Make the Uniform Unit Pricing Regulation in Handbook 130 more comprehensive by adding terms for commodities sold by length.

Item under Consideration:
Amend Handbook 130 Uniform Unit Pricing Regulation as follows:

Section 2. Terms for Unit Pricing

The declaration of the unit price of a particular commodity in all package sizes offered for sale in a retail establishment shall be uniformly and consistently expressed in terms of:

(a) Price per kilogram or 100 g, or price per pound or ounce, if the net quantity of contents of the commodity isin terms of weight.

(b) Price per liter or 100 mL, or price per dry quart or dry pint, if the net quantity of contents of the commodityis in terms of dry measure or volume.

(c) Price per liter or 100 mL, or price per gallon, quart, pint, or fluid ounce, if the net quantity of contents of the commodity is in terms of liquid volume.

(d) Price per individual unit or multiple units if the net quantity of contents of the commodity is in terms of count.

(e) Price per square meter, square decimeter, or square centimeter, or price per square yard, square foot, or square inch, if the net quantity of contents of the commodity is in terms of area.

(f) **Price per meter, decimeter, centimeter or price per yard, foot, or 100 feet, or inch, if net quantity of contents of the commodity is in terms of length.**

Previous Action:
New item in 2023

Original Justification:
Unit Pricing allows consumers to make value comparisons of similar products and assists those consumers with making purchasing decisions. Currently the Uniform Unit Pricing Regulation offers guidance for commodities sold by weight, dry measure or volume, liquid volume, count, and area. It does not include guidance for commodities sold by length.

The current period of inflation has led to frequent price and package size changes. This is resulting in unit pricing becoming more critical to consumers who are trying to maximize their purchasing power. Without clear guidance many of these commodities are being sold by the each or with inconsistent units. This does not allow consumers to make value comparisons of similar products.

Adding the proposed language will add clear guidance to the regulation and assist retailers with providing accurate unit pricing information to consumers. The guidance will also benefit retailers who are either required to or voluntarily choose to unit price their commodities by providing specific information to items sold by length. The proposed language is clear and consistent with the other units of measure currently stated in the regulation.

The submitter acknowledges that due to added time and expense, some retailers may be opposed to unit pricing by length as it adds another category of commodity that is required be addressed. Some retailers may question the value of unit pricing and feel it is not used or underutilized by consumers.

The submitter requested that this be a Voting item in 2023.

Comments in Favor:

Regulatory:

- Mr. Mark Paquette, Vermont, and the submitter of this item noted that routine unit pricing inspection includes weight, volume, count, and area but does not have a term for length. He supported the NIST amendment to add 100 feet designation, believes this item is fully vetted and ready for a vote.
- Mr. Kurt Floren, County of Los Angeles, fully supported this item. He agreed that linear measurement needs to be included, however the information in Publication 15 does not reflect the recent NIST amendment to add 100 feet as part of the item. He supported this as a voting item with the addition of the NIST amendment.
- Mr. John McGuire, New Jersey, stated that New Jersey enforces unit pricing and supports this as a voting item with the amendments as stated by Kurt Floren, County of Los Angeles.
- Mr. Ed Williams, Ventura County California, supported the item with the amendment including 100 feet.
- Mr. Kevin Schnepp, California. Expressed support for the item and to include the NIST amendment.
- Mr. Jim Willis, New York, supported the item and concurred with the comments made.
- Mr. Jim Cassidy, Massachusetts, supported this item as Kurt Floren proposed it. He also stated that Massachusetts is also a unit pricing jurisdiction.

Industry:

- None

Advisory:

- Mr. David Sefcik, NIST OWM, supported the proposal and said it has been used since the late 90's and needs to add per 100 feet and from the best practices.

Comments Against:

Regulatory:

- None

Industry:

- None

Advisory:

- None

Neutral Comments:

Regulatory:

- None

Industry:

- None

Advisory:

- None

Item Development:

NCWM 2023 Interim Meeting: The Committee heard many comments in support of this item including adding 100 feet designation. The Committee considered this item as fully developed after adding "100 feet" and assigned Voting status to the item.

Regional Associations' Comments:

WWMA 2022 Annual Meeting: Mrs. Catherine de Contreras, CDFA/DMS, Kurt Floren of LA County, and David Sefcik of NIST OWM, supports this item moving forward. Mr. Sefcik also brought up adding the term "100-foot," after the word foot in item (f) to harmonize language with the best practice guide publication NIST SP1181 *Unit Pricing Guide*.

(f) Price per meter, decimeter, centimeter or price per yard, foot, 100-foot, or inch, if net quantity of contents of the commodity is in terms of length.

The WWMA L&R Committee recommends Voting status with the above changes, based on the comments heard.

SWMA 2022 Annual Meeting: Ms. Lisa Warfield (NIST OWM) is in support of proposed changed and recommends adding "per 100 feet" ("Or 100 feet"). The recommended term has been in the marketplace and adding this into the handbook will align to NIST SP 811.

The Committee recommends this as a Voting Item with the addition of the term "100-foot," after the word foot in item (f) to harmonize language with the best practice guide publication NIST SP1181 Unit Pricing Guide.

(a) **Price per meter, decimeter, centimeter or price per yard, foot, 100-foot, or inch, if net quantity of contents of the commodity is in terms of length.**

CWMA 2022 Interim Meeting: Doug Musick, Kansas supports the item and believes it is ready for voting status. The Committee concurs this item is fully developed and ready for voting status.

NEWMA 2022 Interim Meeting: At the 2022 NEWMA Interim Meeting Mark Paquette, Vermont and submitter of this item commented that he believes terms of length should be added to this model language for consistency in the marketplace. Lisa Warfield, NIST Technical Advisor commented that OWM supports the proposed change and recommends adding "per 100 feet" be added to the proposed language. The modified language would read, "Price per meter, decimeter, centimeter or price per yard, foot or 100 feet, or inch, if net quantity of contents of the commodity is in terms of length." Ms. Warfield further commented that the Uniform Unit Pricing Regulation does not provide guidance for commodities sold by length. The terms recommended in the proposal have been in the marketplace, but adding the proposed language would add clear guidance to the regulation and assist retailers with providing accurate unit pricing information to consumers. She also remarked that making this change would be consistent with NIST Special Publication 1181 Unit Pricing Guide, "A Best Practice Approach to Unit Pricing". Ms. Warfield noted that there is an editorial error in the title – it should read Uniform Unit Pricing Regulation. Jason Flint, New Jersey commented that the State of New Jersey supports this item with Ms. Warfield's amendment and supports it as a voting item. Mr. Paquette has no objection to the amended language. Jimmy Cassidy, MA; Cheryl Ayer, NH; and Walt Remmert, PA all support it as a voting item as amended. The Committee recommends voting status for this item as amended by Ms. Warfield.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.com/publication-15 to review these documents.

NTP – UNIFORM REGULATION FOR NATIONAL TYPE EVALUATION

NTP-23.1 W Section 4. Prohibited Acts and Exemptions

Source:
Electrify America

Purpose:
Provide provisions for devices in service prior to the expansion of NTEP evaluation of the device category.

Item under Consideration:
Amend Handbook 130 Uniform Regulation for National Type Evaluation as follows:

Section 4. Prohibited Acts and Exemptions

…

(m) A device that is not traceable to an active CC may be used if the following conditions are met:

(i) Written notification is received by the Director prior to the device being placed in service;

(ii) The notification is accompanied by documentation demonstrating that the performance and construction of the device type is in conformance with the specifications, tolerances, and other technical requirements of NIST Handbook 44 effective on the date that the device will be placed in service; and

(iii) The Director has approved the use of the device type pursuant to this paragraph.

Previous Action:
New item in 2023

Original Justification:
NTEP does not accept applications for evaluations of all categories of devices that are covered by category-specific standards in Handbook 44. As just a few examples, NTEP does not evaluate timing devices, fabric-measuring devices, odometers, or milk meters. If a certificate of conformance were an absolute requirement for the lawful use of a commercial device, the absence of these evaluation programs would present a serious problem, because no device in these categories would be permissible. The Uniform Regulation in Handbook 130 addresses that situation by stating that the Uniform Regulation applies to categories for which NTEP has established evaluation procedures.

But there remains a problem about categories for which NTEP has not previously established evaluation procedures, but then newly begins evaluations. This problem has surfaced recently for electric vehicle chargers. Before 2021, NTEP did not have an evaluation procedure for EV chargers, and it did not accept applications for evaluating them. In 2021, NTEP published an evaluation protocol for AC chargers, and on July 1, 2022, it issued its first certificate for an AC charger. As the Uniform Regulation is drafted, there is a significant risk for existing devices. The Uniform Regulation says a device must be traceable to an active certificate of conformance. Section 4(a), (b). By definition, a device is traceable to an active CC only if the device "was manufactured during the period that the Certificate was maintained in active status." Section 2.1. A device that was manufactured before NTEP was even inspecting a given category of device was not manufactured during a period withan active certificate. There are various exceptions in section 4 (such as one-of-a-kind devices, or the change that a statenewly adopts the Uniform Regulation), but none that works for an existing device in this situation.

Many states do not incorporate the Uniform Regulation by reference but have instead drafted their own rules that are basedon it. Most such states do not incorporate this narrow concept of "traceable," which produces such potential difficulties in cases where NTEP transitions by beginning to evaluate a given category of device. Most states that have drafted their own rules also provide a general-purpose exception, that a device without an NTEP certificate can still be used if the weights and measures director approve the device type. In 2021, Florida amended its regulations for exactly that sort of purpose. Previously, Florida absolutely required an NTEP certificate; now, a device without an NTEP certificate can be used in commercial service if the director has reviewed and approved the device under Handbook 44 standards.

We believe that approach was the original intent of the Uniform Regulation. In other words, NTEP was meant to provide assistance to state directors, by offering a standard nationwide evaluation they could rely on; but it was not meant to restrict the ability that state directors used to have, to conduct their own evaluations. The proposed amendment would clarify that authority, in states that incorporate the Uniform Regulation by reference. Under the amendment, a director would not be forced to accept or approve devices from before an NTEP transition. But the director would be able to approve them.

The proposal does not limit its scope to devices that were placed in service, installed, or manufactured before a given point, whether that point is the publication of an evaluation protocol, the opening of NTEP to application, the issuance of the first certificate in a given category, or the issuance of a certificate for a given type. The various options for such trigger dates would present unfairness, in various ways. For example, when NTEP has published an evaluation protocol, there will typically be an extended period of time during it which it does its first evaluations under the new protocol, before it actually issues certificates. It would not be sensible to make the "director approval" available only for devices from before the protocol was published, but not those during the intervening period while NTEP was getting used to the process in its first evaluations. Then, when NTEP does issue certificates, some device type will get the first one. That might be because that manufacturer was first in line, but there could be multiple other factors (scheduling at evaluation labs, the complexity of a given design, etc.). It would not seem right to cut off the "director approval" option for all other devices just because the first certificate has issued. Besides, the "director approval" option should not really be cut off at any point. This option should remain available, not only in NTEP transitions but indefinitely, so that a state director retains the discretion and flexibility to approve a device type. So that, as was originally intended, the NTEP program is a support and assistance to regulators, rather than a constraint on them.

A regulator should not, of course, approve a device type that is not capable of complying with applicable Handbook 44 standards. The proposal would require that an application for director approval be accompanied by documentation showing the device type does comply. The text is modeled on the regulatory amendment that Florida adopted in 2021 to establish a "director approval" mechanism.

This problem is arising today with respect to EV chargers, and solving it is a nationwide issue to avoid the potential replacement of chargers that are adequate and comply with Handbook 44 standards, simply because of a technical flaw in the Uniform Regulation. But the problem is likely to recur. EV chargers are not the last device category for which there will be an NTEP transition. The lack of a "director approval" exception in the Uniform Regulation is likely an oversight from the original drafting, and it should be corrected.

The submitter acknowledges that one potential objection would be that this proposal will increase the burden on regulators, because they will receive multiple applications for director approval. We believe that concern should not lead to rejection of the proposal. Many states already operate a "director approval" mechanism, and we are not aware of undue burden they face from applications. Moreover, a given agency would be able to decide how it wants to implement or exercise this exception. An agency might, for example, announce that "director approval" is only available in certain specified circumstances.

Another objection might be that "director approval" does not need to be written into the Uniform Regulation, becausedirectors have this authority anyway. That might be true in many states, but there are likely some states that adopt the Uniform Regulation by reference, and where state law does not give the director authority to issue variances.

The submitter requested that this be a Voting item.

Comments in Favor:

Regulatory:

- None

Industry:

- Mr. Keith Bradley, Electrify America who is the submitter stated that NTEP has no ability to approve devices and issue certificates for these devices. He also testified that this is not intended to be open ended but meant as a modest solution. Parking meters and whatever else do not have Certificate of Conformances.

Advisory:

- None

Comments Against:

Regulatory:

- Mr. Matt Curran, Florida stated that this proposal creates a dangerous slope - if you can't get NTEP certification then go to the states for approval.
- Mr. Johnathan Garcia, San Diego County stated that he opposed the item and that it was too open ended.
- Mr. Hal Prince, Florida stated that this item seems to have been drafted with the Florida regulations that allow one-of-a- kind devices in mind. This proposal is not the intent, and this isn't the direction intended by the Florida regulation. He also stated that he did not support the item.
- Mr. Craig Van Buren, Michigan stated that he does not support this item as it is currently written.
- Mr. Kevin Schnepp, California recommended that this item be withdrawn.
- Mr. Tim Chesser, Arkansas, was opposed and stated that if you have a device that is not NTEP certified and will not be NTEP certified, that you can request an exemption, but we won't approve it. Electrify America has good intention.
- Mr. Jim Willis, New York, recommended that this item be withdrawn.
- Mr. Doug Rathbun, Illinois stated that Illinois is opposed.
- Mr. Jason Flint, New Jersey stated that they are opposed.

Industry:

- Mr. Michael Keilty, Endress + Hauser Flow stated that as a manufacturer with NTEP certified devices they are obligated to ensure their devices comply with NTEP and Handbook 44 even after certification. This proposal avoids the NTEP process in perpetuity. Mr. Keilty recommended it be assigned withdrawn status.
- Mr. Dmitri Karimov, Liquid Controls stated that he was opposed to this item as it was too open ended, had no time frame and NIST handbook 130 has provisions for one-of-a-kind devices.
- None

Advisory:

- None

Neutral Comments:

Regulatory:
- None

Industry:
- None

Advisory:
- None

Item Development:

NCWM 2023 Interim Meeting: The Committee assigned Withdrawn status based on the numerous Regulatory comments received during open hearing opposing this item. The Committee heard overwhelming concerns that this item would create conflicts with states who already have the means to address the issue, and that the language was too open-ended. The Committee also considered that other industry members cited that they too must go through a similar process with NTEP and no exemptions are given to them.

Regional Associations' Comments:

WWMA 2022 Annual Meeting: Mr. Michael Keilty, representing self, recommends withdrawal. He spoke concerns that this would bypass the NTEP type approval process and have ramifications for all other devices besides EVFS. Mr. Kevin Schnepp, CDFA/DMS, recommended withdrawal, the non-retroactive periods address this issue, and if an item can meet the criteria of part (ii) it can be NTEP type approved. Mr. Kurt Floren, LA County suggests withdrawal of this item.

There was support from representatives Chris King of Siemens and Scheleese Goudy of Electrify America. Mrs. Goudy explained that states such as Florida have recently developed regulations in order to allow the director to accept devices.

The Western recognizes the concerns addressed by this proposal but feel this is not the appropriate method to solve them. Rather than modifying the NTEP approval process, these concerns would best be addressed by non-retroactive dates or other EVFS specific codes.

Therefore, the WWMA L&R Committee recommends this item be withdrawn.

SWMA 2022 Annual Meeting: Scheleese Goudy, Electrify America, stated that the proposal's purpose is to address NTEP's lack of uniform regulation provisions in dealing with transitions for devices that were not previously issued certificates of conformance and now are (for example EV chargers). She is in favor of this as a Voting item.

Mr. Michael Keilty (Endress + Hauser) stated that this language creates a definition of exemption against using NTEP and doesn't think that is safe to use for all types (meters, scales, charger, dispensers). He opposes this item and doesn't want non-traceable devices to be installed. He asks that this item be withdrawn.

John Stokes, South Carolina, questioned if there isn't a certificate of conformance then how it gets in use. At first, he was undecided and then later clarified was against it as presented.

Ken Ramsburg (Maryland) mentioned the letter from the director of NTEP that its purpose isn't to evaluate all devices in the marketplace. He suggested inquiring if there is a list of devices they plan to evaluate. Are they going to evaluate AC/DC or WIMS?

Mr. Hal Prince (Florida) mentioned that this language is similar to language already adopted in Florida rule. While this was right for Florida (since Florida's language is more restrictive) he recommends proceeding with caution as this may open the door for others to sidestep NTEP which wasn't the intention. He also mentioned that NTEP will be offering certification for AC devices and conditional for DC charging devices based on California Type Evaluation Program.

Mr. Tory Brewer (West Virginia) commented that use of the word "active" was confusing since some NTEP "inactive" certificates are still acceptable to use. He suggested possibly changing the word "active" to "valid".

Mr. Steve Benjamin (North Carolina) commented that the Director cannot be notified if devices are already in place.

Mr. Michael Keilty – Endress + Hauser attempted to distinguish between Active vs Inactive.

After the comments received from the floor there were many questions that remained. The Committee believed this item has merit and needs to move forward so it can be further vetted by the membership and possibly further developed. The Committee gives a Developing status to this item.

CWMA 2022 Interim Meeting: Scheleese Goudy, Electrify America commented that NTEP does not provide evaluation certificates for all types of devices. This item would provide exceptions for devices in service prior to NTEP evaluating and certifying a new device category. Doug Rathbun, Illinois commented he isn't sure whether he supports this item. He is concerned it could make the state vulnerable to litigious action. Craig Van Buren, Michigan supports the concept but believes the item needs further development. The State of Michigan already has provisions for non-NTEP devices that are more stringent than this proposal in some areas. Michael Keilty, Endress+Hauser commented he believes the item needs further development. The term "not traceable" and no retroactive date are two areas he believes need further development. Doug Musick, Kansas concurs with others and indicated he is unsure if this item is necessary because NTEP states already have provisions for non-NTEP devices. Mr. Musick expressed concern that while this is being discussed for electric vehicle charging stations it would apply to all devices. Loren Minnich, Kansas suggested using OIML or Measurement Canada as an alternative certifying body to NTEP. Joe Smith, Wisconsin commented this item opens the possibility for non-uniformity among neighboring states. Due to concerns expressed during open hearings and those expressed during work session discussions, the Committee recommends this item be given Developing status and returned to the submitter for further development based on comments heard during open hearings.

NEWMA 2022 Interim Meeting: During the 2022 NEWMA Interim Meeting Keith Bradley, Electrify America commented NTEP does not evaluate all devices, and so there is no need for a certificate if NTEP doesn't not evaluate a particular device. He believes provisions should be made for devices in service prior to the expansion of NTEP evaluation to cover such device. Mr. Bradley further commented the simplest solution is to give state agencies discretion to allow a waiver for such devices. He further stated that the model language as it currently exists inadvertently hamstrings states from regulating devices not covered by NTEP found in their states. Chair Sakin asked if state agency directors already the authority have to allow waivers. Lisa Warfield, NIST Technical Advisor commented that NIST has not had an opportunity to evaluate this item but will do so before the 2023 NCWM Interim Meeting. Michael Keilty, industry, commented that he feels this is a worrisome precedent. He believes that this provision could have unintended consequences to allow manufacturers to place devices into service before they have been NTEP approved. John McGuire, New Jersey concurs with Mr. Keilty and believes the item should be withdrawn. Walt Remmert, Pennsylvania commented that he also believes the item should be withdrawn, as does Jimmy Cassidy, Massachusetts. The Committee recommends the item be withdrawn.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.com/publication-15 to review these documents.

FLR – UNIFORM FUELS AND AUTOMOTIVE LUBRICANTS REGULATION

FLR-23.3 D Section 2.20. Hydrogen Fuel.

Source:
Quong and Associates

Purpose:
Add equivalent hydrogen quality standard, ISO 14687 to 2.20.

Item under Consideration:
Amend Handbook 130 Uniform Fuels and Automotive Lubricants Regulation as follows:

> **2.20. Hydrogen Fuel.** – Shall meet the latest version of SAE J2719, "Hydrogen Fuel Quality for Fuel Cell Vehicles." **or ISO14687 "Hydrogen fuel quality — Product specification"**.
> (Added 2012) **(Amended 20XX)**

Previous Action:
New item in 2023

Original Justification:
As hydrogen fuel cell vehicles expand worldwide, the codes and standards that support them have also moved to an international stage. Currently, most of the hydrogen quality requirements for fuel cell vehicles have occurred under the International Organization for Standardization (ISO) 14687 "Hydrogen fuel quality — Product specification". The latest revision of ISO 14687 occurred in 2019, and SAE 2719 was updated in 2020 to match. The attached document compares the latest hydrogen fuel quality specifications in ISO 14687 2019 and SAE J2719 2020. Having both requirements will allow the user of the station to use the most updated specification and ensure that fuel cell vehicles are protected from contaminated fuel.

Some may argue that Argument: The updates in ISO 14687 could be considered a relaxation of the hydrogen quality requirements. The submitter explained that the changes were made to provide flexibility for contaminates which could not damage the fuel cell vehicle, or combinecontaminates with similar characteristics, such as inert gases or carbon monoxide/formaldehyde/formic acid.

The submitter requested that this be a voting item.

Comments in Favor:

Regulatory:
- None

Industry:
- None

Advisory:
- None

Comments Against:

Regulatory:
- Dr. Matt Curran, Florida opposed the item going forward with two standards.

- Mr. Doug Musick, Kansas and Austin Sheppard, County of San Diego concurred that only one standard should be included.

- Ms. Vanesa Benchea, FALS Chair stated that two standards would be confusing. FALS recommended there should be direction to reach out to stakeholders, industry and make this informational.

- Mr. Kevin Schnepp, California: Concurs with FALS to keep it as informational.

- Mr. Austin Sheppard, County of San Diego stated he concurred with the previous comments regarding two standards and suggests picking the more stringent of the two standards instead of either.

- Mr. Ed Williams, Ventura County California stated he supports the comments made by Austin Sheppard San Diego County including the date of the version of the standard. He also supported the comments from Mr. Schnepp.

Industry:
- None

Advisory:
- None

Neutral Comments:

Regulatory:
- None

Industry:
- None

Advisory:
- None

Item Development:
NCWM 2023 Interim Meeting: The Committee, after hearing concern about the problems and confusion that will arise from citing two standards from Regulators and FALS Chair assigned Developing status to the item**.**

The Committee provides the following guidance to the Developer: Determine which standard is appropriate to resolve the issues derived from having two standards and update the Committee.

Regional Associations' Comments:

WWMA 2022 Annual Meeting: Mr. Kevin Schnepp, CDFA/DMS, mentioned that the two systems, ISO and SAE are not always aligned. They are meant to be aligned but when changes are made those changes may be adopted at different times (example of 6-month gap in 2019). Also mentioned that the reference standards in the ISO are specifically section (d) of 14687, and this should be referenced specifically. He also mentioned that there may not be a need for this item. The Committee suggests the edits below.

2.20. Hydrogen Fuel. – Shall meet the latest version of SAE J2719, "Hydrogen Fuel Quality for Fuel Cell Vehicles." **Or ISO14687 Grade (D) "Hydrogen fuel quality – Product specification".**
(Added 2012) **(Amended 20XX)**

The WWMA L&R Committee recommends Voting status with the above revisions based on the comments heard.

SWMA 2022 Annual Meeting: Dr. Matt Curran (Florida) commented that only one reference should be listed if equivalent. Listing both could cause confusion.

Ms. Lisa Warfield (NIST OWM) commented that Wanda Williams (NIST OWM) is working with the Hydrogen National Work Group and should have an update by January 2023.

The Committee concurred with Dr. Curran that the item needs further development to determine which standard will be referenced and recommends it to be a Developing Item.

CWMA 2022 Interim Meeting: Doug Rathbun, Illinois commented he supports this item and believes it is ready for voting status. Hearing no further comments during open hearings the Committee concurs the item is fully developed and ready for voting status. The Committee recommends the National L&R Committee consider combining this item with FLR-23.4 as a block.

NEWMA 2022 Interim Meeting No comments were heard. The committee does not have a recommendation for this item.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.com/publication-15 to review these documents.

FLR-23.4 V Section 4.3. Dispenser Filters

Source:
Quong and Associates, Inc.

Purpose:
Add a filter requirement for hydrogen commercials.

Item under Consideration:
Amend Handbook 130, Uniform Fuels and Automotive Lubricants Regulation as follows:

4.3. Dispenser Filters
…

4.3.3 Delivery of Hydrogen Gas

(a) All gaseous hydrogen dispensers shall have a 5 micron or smaller nominal pore-sized filter, and

(b) shall be fitted with a coalescing filter that is size appropriate to the dispensing system, to protect the vehicle from liquid contamination.

(Amended 2014, 20XX)

Previous Action:
New item in 2023

Original Justification:
Filter requirements for gasoline and diesel dispensing systems are already included in NIST Handbook 130 and are intended toprotect the vehicle from particulate contamination. The same requirement is necessary for gaseous hydrogen dispensing systems because the particulates can harm the vehicle valves and other components. In addition, a liquid filter is necessary because water, oil, or other contaminates can freeze inside valves or cause damage to the fuel cell stack. The National Renewable Energy Laboratory (NREL) captures hydrogen quality and other data from US hydrogen dispensers. The attached slides show that particulates and hydrogen have exceeded the current limit set in SAE J2719 and required in Section 2.20 of NIST Handbook 130. Adding a filter requirement, similar to other fuels, is a simple solution that ensures proper hydrogen fuel quality and protects the vehicle from damage.

Some may argue that the requirement for filters is onerous and not necessary, but the submitter adds that filters are commonly used at most hydrogen dispensers and are required by the following hydrogen standards (see supporting documents on the NCWM website for exact text):

- CSA/ANSI HGV 4.1 “Standard for hydrogen-dispensing systems”
- CSA/ANSI HGV 4.9 “Hydrogen fueling stations”
- ISO 19880-1 “Gaseous hydrogen — Fueling stations — Part 1: General requirements”

The submitter requested that this be a voting item as a retroactive requirement.

Comments in Favor:

Regulatory:
- None

Industry:
- None

Advisory:
- None

Comments Against:

Regulatory:
- None

Industry:
- None

Advisory:
- None

Neutral Comments:

Regulatory:
- Matthew Curran, Florida expressed concern about the lack of specifications for the dispensing system filter.

Industry:
- Mr. Spencer Quong, Quong Associates responded that the lack of specifications for the dispensing system filter was to provide room to determine the appropriate filter for the system.

Advisory:
- None

Item Development:

NCWM 2023 Interim Meeting: The Committee assigned Voting status at the NCWM 2023 Interim meeting with the expectation that the developer would provide specific filter information before March 15, 2023. The Committee amended the proposal based on research conducted by Chair Rathbun which was discussed and agreed upon by the Submitter. The Committee also reformatted the proposal to create a separate section 4.3.3. Delivery of Hydrogen Gas and separated the item into two sections to specify each type of filter required for the dispenser.

Regional Associations' Comments:

WWMA 2022 Annual Meeting: Mr. Kevin Schnepp, CDFA/DMS, supports this item moving forward as voting.

The WWMA L&R Committee recommends Voting status based on the comments heard with the following minor editorial change:

(c) All gaseous hydrogen dispensers shall have a 5 micron or smaller nominal pore-sized filter and a filter to protect the vehicle from liquid contamination.
(Amended 2014, 20XX)

SWMA 2022 Annual Meeting: No comments were heard from the floor.

The Committee feels this item is fully developed and recommend it as a Voting Item.

CWMA 2022 Interim Meeting: Doug Rathbun, Illinois supports this item and believes it is ready for voting status. He further believes it could be blocked with FLR 23.3. Ivan Hankins, Iowa commented that he does not know if the micron size is appropriate. Mr. Hankins further commented the Purpose section of this item should read: "Add a filter requirement for commercial hydrogen." Mr. Rathbun suggested referring to the additional items that were submitted to clarify any questions. The Committee recommends the National L&R Committee consider combining this item with FLR-23.3. The Committee concurs this item is fully developed and is ready for voting status with Mr. Hankins' recommended change to the Purpose statement.

NEWMA 2022 Interim Meeting: No comments were heard. The Committee has no recommendation for this item.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.com/publication-15 to review these documents.

PPV – EXAMINATION PROCEDURE FOR PRICE VERIFICATION

PPV-23.1 W Inspection Procedures of Online Orders

Source:
Kansas Department of Agriculture

Purpose:
Create price verification inspection procedures for online orders.

Item Under Consideration:
Amend Handbook 130, Examination Procedure for Price Verification, as follows:

Form a NCWM Task Group to develop price verification inspection procedures for online orders.

Previous Action:
2023: New Item

Original Justification:
The current procedure is inadequate to address pricing accuracy when shopping online. The submitter acknowledges that some may believe this is impractical.

Requested Status by Submitter: Assigned to a Task Group

Comments in Favor:

Regulatory:
- Loren Minnich, Kansas explained why they proposed this item. He stated that they received a complaint for online grocery order and didn't know how to investigate it. He went on to explain that the current procedure is not accurate and asked the conference to form a task group to develop procedures for online ordering. He offered to be a member of the task group but not be the chairman for it.

Industry:
- None

Advisory:
- None

Comments Against:

Regulatory:
- Mr. Kurt Floren, County of Los Angeles opposed this item. He believes E-Commerce standards should be established before an inspection procedure can be developed and be voted upon. He expressed it is different shopping in the marketplace than online. He raised concerns like sampling and tolerances when items offered online could be millions.

Industry:
- None

Advisory:
- None

Neutral Comments:

Regulatory:
- None

Industry:
- None

Advisory:
- Ms. Lisa Warfield, NIST OWM informed that Committee that OWM hasn't looked at it yet but can look at the price verification regulation but hoping that E-commerce gets resolved by NCWM or the PALS.

Item Development:

NCWM 2023 Interim Meeting: The Committee felt this item was important for membership but assigned Withdrawn status to this item because L&R Chairman, Doug Rathbun asked the body for a volunteer to chair a task group, but no one volunteered.

Regional Associations' Comments:

WWMA 2022 Annual Meeting: Mr. Kurt Floren, LA County, recommended withdrawal of this item because it is premature. His thoughts were that e-commerce regulations, including several proposals in this agenda, are still being developed. We cannot develop inspection procedures to enforce regulations that do not yet exist.

The WWMA L&R Committee recommends this item as informational; formation of a task group is premature until we have e-commerce model regulations in place.

SWMA 2022 Annual Meeting: No comments were received from the floor.

The Committee believes this item has merit and recommend as an Assigned Item on the NCWM agenda.

CWMA 2022 Interim Meeting: Loren Minnich, Kansas commented that his state received a complaint from a consumer who placed an online order, and they were charged a different price than was posted. He is asking the Committee to consider developing a procedure for online ordering. The Committee is recommending the National L&R Committee consider assigning this item to a work group, task force, or other appropriate group for further development.

NEWMA 2022 Interim Meeting: At the 2022 NEWMA Interim Meeting John McGuire, New Jersey commented that this item has merit and should be further developed by a task group; he recommends it as a Developing item. Walt Remmert, Pennsylvania concurs and believes that Kansas should be invited to lead the group. Mr. McGuire further commented that PALS is addressing e-commerce but not price verification. Jim Cassidy believes the proposal should go back to the submitter for further development. Jim Willis, New York asked if Informational status would be more appropriate. Lisa Warfield, NIST Technical Advisor commented that if the Committee believes the item has merit, it can recommend further action to the national L&R Committee. The Committee concurs to recommend to the NCWM L&R Committee that it should pursue further development of the item in the manner in which is most productive. Therefore, the Committee recommends Developing status for this item.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.com/publication-15 to review these documents.

NET – HANDBOOK 133: CHECKING THE NET CONTENT OF PACKAGED GOODS

NET-22.1 A HB133, Section 1.2.6. Deviations Caused by Moisture Loss or Gain and Section 2.3.8. Table 2-3 Moisture Allowances.

Source:
NCWM Cannabis Task Group

Purpose:
Establish an acceptable Net Weight allowance for *Cannabis*, which is related to the MOS Form 15 related to water activity and the Packaging and Labeling Form 15 Sections 2 and 10.

Item Under Consideration:
Amend Handbook 133, Checking the Net Contents of Packaged Goods, as follows:

1.2.6. Deviations Caused by Moisture Loss or Gain

Deviations from the net quantity of contents caused by the loss or gain of moisture from the package are permitted when they are caused by ordinary and customary exposure to conditions that normally occur in good distribution practice and that unavoidably result in change of weight or measure. According to regulations adopted by the U.S. Environmental Protection Agency, no moisture loss is recognized on pesticides. (see Code of Federal Regulations 40 CFR 156.10.)

1.2.6.1. Applying a Moisture Allowance

Some packaged products may lose or gain moisture and, therefore, lose or gain weight or volume after packaging. The amount of moisture loss depends upon the nature of the product, the packaging material, the length of time it is in distribution, environmental conditions, and other factors. Moisture loss may occur even when manufacturers follow good distribution practices. Loss of weight "due to exposure" may include solvent evaporation, not just loss of water. For loss or gain of moisture, the moisture allowances may be applied before or after the package errors are determined.

To apply an allowance before determining package errors, adjust the Nominal Gross Weight (see Section 2.3.6. "Determine Nominal Gross Weight and Package Errors"), so the package errors are increased by an amount equal to the moisture allowance. This approach is used to account for moisture loss in both the average and individual package errors.

It is also permissible to apply the moisture allowances after individual package errors and average errors are determined.

Example:

A sample of a product that could be subject to moisture loss might fail because the average error is minus or the error in several of the sample packages are found to be unreasonable errors (i.e., the package error is greater than the Maximum Allowable Variation (MAV) permitted for the package's labeled quantity).

You may apply a moisture allowance after determining the package errors by adding the allowance to the Sample Error Limit (SEL) and then, comparing the average error to the SEL to determine compliance. The moisture allowance must be added to the MAV before evaluating sample errors to identify unreasonable minus errors**.**

(Amended 2010)

This handbook provides "moisture allowances" for some meat and poultry products, flour, pasta, ***Cannabis*** **(this only includes plant material but does not include products containing** ***Cannabis*****)** and dry pet food. (See Chapter 2, Table 2-3. "Moisture Allowances") These allowances are based on the premise that when the average net weight of a sample is found to be less than the labeled weight, but not by an amount that exceeds the allowable limit, either the lot is declared to be within the moisture allowance or more information must be collected before deciding lot compliance or noncompliance.

Test procedures for flour, some meat, and poultry are based on the concept of a "moisture allowance" also known as a "gray area" or "no decision" area (see Section 2.3.8. "Moisture Allowances"). When the average net weight of a sample is found to be less than the labeled weight, but not more than the boundary of the "gray area," the lot is said to be in the "gray" or "no decision" area. The gray area is not a tolerance. More information must be collected before lot compliance or noncompliance can be decided.

Appropriate enforcement should be taken on packages found short weight and outside of the "moisture allowance" or "gray area."

(Amended 2002)

…Table 2-3.
Moisture Allowances

Verifying the labeled net weight of packages of:	Moisture Allowance is:	Notes
Flour	3 %	
Dry pet food	3 %	Dry pet food means all extruded dog and cat foods and baked treats packaged in Kraft paper bags and/or cardboard boxes with a moisture content of 13 % or less at time of pack.
Pasta products	3 %	Pasta products means all macaroni, noodle, and like products packaged in kraft paper bags, paperboard cartons, and/or flexible plastic bags with a moisture content of 13 % or less at the time of pack.
Borax	see Section 2.4. Borax	
Cannabis	**3 %**	***Cannabis* means plant material only, and not products containing *Cannabis*, whether containing more than 0.3% Total Delta-9 THC (also known as *Cannabis*, Marijuana or Marihuana) or containing 0.3% or less Total Delta-9 THC (also known as Hemp).**
Wet Tare Only1		
Fresh poultry	3 %	Fresh poultry is defined as poultry above a temperature of − 3 °C (26 °F) that yields or gives when pushed with the thumb.
Franks or hot dogs	2.5 %	

Bacon, fresh sausage, and luncheon meats	0 %	For packages of bacon, fresh sausage, and luncheon meats, there is no moisture allowance if there is no free-flowing liquid or absorbent material in contact with the product and the package is cleaned of clinging material. Luncheon meats are any cooked sausage product, loaves, jellied products, cured products, and any sliced sandwich-style meat. This does not include whole hams, briskets, roasts, turkeys, or chickens requiring further preparation to be made into ready-to-eat sliced product. When there is no free-flowing liquid inside the package and there are no absorbent materials in contact with the product, Wet Tare and Used Dried Tare are equivalent.
1Wet tare procedures must not be used to verify the labeled net weight of packages of meat and poultry packed at an official United States Department of Agriculture (USDA) facility and bearing a USDA seal of inspection. The Food Safety and Inspection Service (FSIS) adopted specific sections of the 2005 4th edition of NIST Handbook 133 by reference in 2008 but not the "Wet Tare" method for determining net weight compliance. FSIS considers the free-flowing liquids in packages of meat and poultry products, including single-ingredient, raw poultry products, to be integral components of these products (see Federal Register, September 9, 2008 [Volume 73, Number 175] [Final Rule – pages 52189-52193]).		

Previous Action:
2022: Assigned - Cannabis Task Group

Original Justification:
Since *Cannabis* and *Cannabis*-containing products were first legalized by various states, the industry has undergone an unprecedented expansion. Even though these products haven't received Federal approval at this time, more and more states have supported *Cannabis* and *Cannabis*- containing products for medicinal or adult use under their own laws. This has resulted in boutique markets developing across the country with restrictive state boundaries for lack of clarity and uniformity in commercialization of these products.

Cannabis and *Cannabis*- containing products are unique in many aspects; they have a niche as medicine, have resulted in the development of adult use markets, and have an incredible array of different manufacturing and industrial applications. Some of these products contain controlled substances which presents a special concern for the safety and welfare of consumers if misused or mishandled. Further, they are subject to strict regulations by multiple government agencies. *Cannabis* and *Cannabis*- containing products and applications range from non-food to food products for human and animal consumption through inhalation, ingestion, and/or topical or dermal application. They can be used as ingredients in other commodities, changing in most cases the product identity to C*annabis* products. Some *Cannabis* is very susceptible to environmental conditions easily losing or gaining moisture with consequences impacting net quantity, degradation of active cannabinoids, and/or microbial proliferation depending on the situation. These are just some of the reasons there are many concerns and uncertainty surrounding the moisture allowance of *Cannabis*.

In the retail *Cannabis* trade, insufficient attention and guidance is given to moisture migration in or out of some *Cannabis* packaging and as a result, the contents of some *Cannabis* flower packaging have been found to be underweight, resulting in the patient/consumer paying for weight that they are not receiving. For instance, underweight complaints are the #1 consumer complaint in Oregon. See attached table for data from multiple stores of four brands and the incidence of underweight contents.

Preview: If you were shopping any one of 3 stores of a popular brand you'd have a 71% chance of buying a supposedly 1.75g package that is 21.6% underweight, meaning you have a 71% chance of being ripped off by $5 (assuming a $10/g price). The lowest incidence of underweight? 54%. The lowest percent underweight? 2.75%

For the fairness and safety of *Cannabis* consumers, a 3% +/- weight variance based on enforcement of acceptable moisture range needs to be established. A 3% allowance aligns with other known commodities and with California regulations that outline +/- 3%.

Why 3%? Consistent with other items in NIST handbook, aligns with California. If the boundaries are too wide, it exposes the program to diversion.

Is underweight really an issue? I filed Public Records requests with every state that allows *Cannabis* flower commerce. Each of them told me they keep no official records on underweight complaints. However, Oregon went on record telling me underweight is one of their largest complaints (attached). As for one other state, see attached data from Colorado that recorded 69 separate container purchases from 18 separate stores within 4 brands.

The submitter asked that this be a Voting Item in 2022.

Comments in Favor:

Regulatory:

- Mr. Craig Van Buren, Michigan, expressed support to move forward as a voting item, but noted that they are still missing the data and have had issues getting the testing done. He recommended that if the data doesn't support the proposal that it be withdrawn.

Industry:

- None

Advisory:

- None

Comments Against:

Regulatory:

- None

Industry:

- None

Advisory:

- None

Neutral Comments:

Regulatory:

- Mr. Vince Wolpert, Arizona stated that part of the study simulated environment. He pointed out that there are a wide range of packaging options glass, wood, paper, plastic, foil, and that best practices have not been developed yet for the cannabis industry.

Industry:

- None

Advisory:

- Mr. David Sefcik, NIST OWM stated that Cannabis is a schedule 1 controlled substance. OWM recognizes the importance of this item and this time recommended that the item remain assigned until a there is data to support it. He expressed concern with the positive moisture gain allowance stating this allows a moisture gain up to 3% and the HB 133 doesn't allow for moisture gain. The proposal should only address a negative error, not a positive error.

Item Development:

NCWM 2022 Interim Meeting: The Committee designated this item as Assigned at the 2022 NCWM Interim Meeting and removed it from Block 3 (B3). The Committee referred it back to the NCWM Cannabis Task Group to conduct a study relative to moisture loss allowance for Cannabis.

The Committee referred it back to the NCWM Cannabis Task Group to establish data supporting the moisture loss allowance the Task Group recommended. The Committee heard concerns that should the current moisture loss allowance be accepted without a study, the NCWM would be setting a precedence for future moisture loss allowance requests. The Committee considered comments urging the Committee to move forward with the +/- 3 % moisture loss allowance but believes it would be imprudent to accept a moisture loss allowance without supporting data.

The Committee is recommending the NCWM Cannabis Task Group to follow NIST Handbook 130, NCWM, Interpretations and Guidelines section 2.5.6 Guidelines for NCWM Resolution of Requests for Recognition of Moisture Loss in Other Packaged Products to establish the moisture allowances (loss and gain).

A request was made to the Cannabis Task Group for information and data supporting their proposed moisture loss allowance, but as of the time of this writing it was not received.

The Committee assigned Voting status to items B3: PAL-22.1, B3: PAL 22.2 and B3: MOS-22-2 because they heard support for these items and believe they are fully developed.

NCWM 2022 Annual Meeting: This item was originally included in Item Block 3 (B3) but was removed by the Committee at the 2022 Annual meeting. Its status remains "Assigned". The other items were "Voting" items.

The Committee heard from the Cannabis Task Group that work on studying moisture loss has begun. Cannabis Task Group Co-Chair Charlie Rutherford informed the Committee that the Task Group is working with the State of Michigan, a packaging company, and a cannabis provider to study moisture loss.

The Committee heard from Dave Sefcik, NIST, OWM during the open hearings. Mr. Sefcik shared the following with the Committee: "In contrast to hemp, marijuana remains a Schedule I substance under the Controlled Substances Act. NIST does not have a regulatory or policy role related to the production, sale, distribution, or use of cannabis (including hemp and marijuana). NIST participates in the National Conference of Weights and Measures as part of NIST's statutory mission to promote uniformity in state laws, regulations, and testing procedures."

The Committee considered the written NIST, OWM analysis published on the NCWM website prior to the NCWM 2022 Annual Meeting.

NCWM 2023 Interim Meeting: The Committee designated this item as Assigned and kept it assigned to the Cannabis Task Group. The Committee encourages the conduct and completion of a study to determine the moisture allowance and the information to be provided to the Committee. This information is necessary before the Committee can consider the item as fully developed and move it forward as a Voting item.

Regional Associations' Comments:

WWMA 2022 Annual Meeting: The WWMA L&R Committee did not solicit comments on this item, and recommends this item continues as assigned to the NCWM Cannabis Task Group.

SWMA 2022 Annual Meeting: Mr. Charlie Rutherford (Co-chair of NCWM Cannabis Task Group and ASTM) provided a quick update. A cannabis company is willing to give flower for free and Michigan will begin the testing soon and anticipates an update to report at the January Annual meeting.

The Committee recommends this item to remain Assigned.

CWMA 2022 Interim Meeting: Craig Van Buren, Michigan and member of the NCWM Cannabis Task Group commented that his state is collecting data and is hopeful it will be ready for review by the 2023 NCWM Interim meeting, but certainly by the 2023 Annual Meeting. He believes it is ready for voting status pending results of the data. Charlie Rutherford, ASTM and NCWM Cannabis Task Group commented he appreciates the nearly unanimous support for this item from the CWMA. Doug Musick and Loren Minnich, Kansas, support the item and believe it is ready for voting status. Ivan Hankins, Iowa concurs. Based on comments from open hearings, the Committee believes the item is fully developed and ready for voting status. The Committee is aware once the data is collected, changes may occur to the original item, or the item may be deescalated if necessary.

NEWMA 2022 Interim Meeting: Charlie Rutherford, ASTM and Co-chair of the NCWM cannabis task force reported that Craig Van Buren is waiting on some implementation details to be clarified before work can begin in his lab. The Committee recommends this remain as an Assigned item.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.com/publication-15 to review these documents.

NET-22.2 W Section 3.1.1 Test Methods and 3.X. Gravimetric Test Procedure for Viscous and Non-Viscous Liquids by Portable Digital Density Meter.

NOTE: The submitter updated this item following the fall 2022 Regional Meetings.

Source:
Mr. Ronald Hayes (retired)

Purpose:
Allow the use of digital density meters for package checking testing of viscous and non-viscous liquids.

Item Under Consideration:
Amend NIST Handbook 133, Checking the Net Contents of Packaged Goods, to modify Note 2 in Section 3.1.1. Test Methods and Section 3.X. Gravimetric Test Procedure for Viscous and Non-Viscous Liquids by Portable Digital Density Meter. Add a compliance test procedure for 3.X. Gravimetric Test Procedure for Viscous and Non-Viscous Liquids by Portable Density Meter as follows:

3.1. Scope

3.1.1. Test Methods

Notes:

(2) When checking liquid products using a volumetric or gravimetric procedure for **density determination**, the temperature of the samples must be maintained at the reference temperature ± 2 °C (± 5 °F), **except when using Section 3.X. Gravimetric Test Procedure for Viscous and Non-Viscous Liquids by Portable Digital Density Meter, where a correction factor is used to correct the density to the reference temperature.**

3.X. Gravimetric Test Procedure for Viscous and Non-Viscous Liquids by Portable Digital Density Meter

Use the following procedure for packages labeled in fluid volume.

Most portable digital density meters are suitable for measuring the density of homogenous liquids free of suspended gas, air, sediment, and suspended matter. Portable digital density meters should not be used for products such as orange juice with pulp, buttermilk, liquids requiring "shake before use", paint, carbonated products such as soda and beer, or substances not approved by the digital density meter manufacturer.

The suitability of a given meter for use with specific product types is determined based upon the specifications of the manufacturer, the intended application, and verification by a recognized laboratory.

A portable digital density meter must meet the following criteria unless otherwise noted:

- **Influence of viscosity on density result is automatically corrected for highly viscous samples.**
- **RFID function for reading RFID tags for a quicker assignment of methods and for expanding the number of methods available to the inspector.**
- **Built-in data storage for storing test results.**
- **Printing capabilities to print test results is desirable but not required.**
- **Resolution of 4 decimal places with an accuracy to 0.001 g/cm^3. Instrument has a measurement mode setting set to the most "accurate" mode (e.g., precise mode) as defined by the manufacturer.**

Note: Typically, portable digital density meters manufactured after 2??? meet this criteria, but user of the instruments should verify with the manufacturer.

The portable digital density meter shall be verified and approved in accordance with the manufacturers and other recognized calibration procedures before being put into service. The portable digital density meter must only be used in a manner for which it was designed and calibrated. This device must be routinely recertified according to your agency's measurement assurance policies. Refer to NIST HB 130 Section 11 (h) of Weights and Measures Law and NIST HB 133 Chapter 1, Section 1.7. Good Measurement Practices for additional guidance.

Verify the accuracy (calibration) of the PDDM before each initial daily use, before each use at new location, or when there is any indication of abnormal equipment performance (e.g., erratic indications). Recheck the PDDM accuracy (calibration) if it is found that the sample does not pass, to confirm that the test equipment is not at fault".

Users must consult with the manufacturers to ensure the brand and model automatically correct for viscosity for viscosities greater than 100 mPa·s. Viscosities less than 100 mPa·s do not require a viscosity correction.

This test procedure may be used as an alternative test procedure for the following Sections:

- **Section 3.2. Gravimetric Test Procedure for Non-Viscous Liquids.**
- **Section 3.3. Volumetric Test Procedure for Non-Viscous Liquids.**
- **Section 3.4. Volumetric Test Procedures for Viscous Fluids – Headspace.**

Note: Portable Digital Density Meters can also be used as a timesaver for screening products for product quality and product identification .

3.X.1. Test Equipment

- **A scale that meets the requirements in Chapter 2, Section 2.2. "Measurement Standards and Test Equipment."**

- **Note: To verify that the scale has adequate resolution for use, it is first necessary to determine the density of the liquid; next verify that the scale division is no larger than MAV/6 for the package size under test. The smallest graduation on the scale must not exceed the weight value for MAV/6.**

Example:

Assume the inspector is using a scale with 1 g (0.002 lb) increments to test packages labeled 1 L (33.8 fl oz) that have an MAV of 29 mL (1 fl oz). Also, assume the inspector finds that the weight of 1 L of the liquid is 943 g (2.078 lb).

Density: ***1 L = 943 g (2.078 lb)***

MAV: ***29 mL (1 fl oz)***

- ***Convert the Density into mL and Fl oz:***

943 g ÷ 1000 mL= 0.943 g/mL (digital density meter measurement can be used for this step i.e. 0.943 g/cm^3)

(2.07 8 lb ÷ 33.8 Fl oz = 0.061 4 lb/fl oz)

- ***Convert MAV from Volume (mL/fl oz) to Weight:***

29 mL × 0.943 g/mL = 27.347 g
(1 Fl oz × 0.061 4 lb/fl oz = 0.064 lb)

MAV in Weight/6: ***27.347 g ÷ 6 = 4.557 g*** ***0.064 lb ÷ 6 = 0.010 lb***

In this example, the 1 g (0.002 lb) scale division is smaller than the MAV/6 value of 4.557 g (0.010 lb) so the scale is suitable for making a density determination.

(Formatting issue, see current handbook)

- **Low pressure air pump (small) – (e.g., an aquarium air pump)**
- **Syringe (glass or plastic with a Luer fitting 5 mL or larger). The syringe should be free of any lubricating substances)**
- **Distilled or deionized water**
- **Cleaning agents (See Table 3.4. Cleaning Agents)**
- **Waste container**
- **Barometer for obtaining the prevailing barometric pressure, with an accuracy of ± 3.0 mmHg**
- **Thermometer for measuring air temperature with a tolerance of ± 1 °C (2 °F)**
- **Portable digital density meter meeting a minimum requirement of:**

Measuring Range	
Density	0 – 3 g/cm^3
Temperature	0 – 40 °C (32 – 104 °F)[a]
Viscosity	0 – 1000 mPa·s
Accuracy[b]	
Density	0.001 g/cm^3
Temperature	0.2 °C (0.4 °F)
Repeatability s.d.	
Density	0.0005 g/cm^3
Temperature	0.1 °C (0.1 °F)
Resolution	
Density	0.0001 g/cm^3
Temperature	0.1 °C (0.1 °F)
Sample Volume	2 mL
Sample Temperature	max. 100 °C (212 °F)
Footnotes [a.] Filling at higher temperatures possible. [b.] Viscosity < 100 mPa·s, density < g/cm^3	

3.X.2. Test Procedure

1. Follow Section 2.3.1. "Define the Inspection Lot." Use a "Category A" sampling plan in the inspection. Select a random sample

2. Bring the packages and their contents to a temperature, between the reference and ambient temperatures

Note: Some packages (e.g., flavored milk) may need to be gently rolled to mix the contents. Avoid shaking liquids, since shaking some products to mix them will entrap air that will affect density measurements.

3. The portable digital density meter must be near ambient temperature and above the dew point of the ambient air to avoid causing condensation within the unit. Condensation must be avoided and could cause the digital density meter to malfunction and cause potential damage.

4. **Using distilled or deionized water or other reference standard(s), validate the digital density meter per the manufacturer's calibration instructions. The portable digital density meter shall be validated to verify the accuracy (calibration) of the portable density meter before each initial daily use, before each use at new location, or when there is any indication of abnormal equipment performance (e.g., erratic indications). Recheck the portable density meter accuracy (calibration) if it is found that the sample does not pass, to confirm that the test equipment is not at fault. The digital density meter shall be calibrated using a standard sample, within an allowable density range of ± 0.0005 g/cm^3.**

5. **Select the first 2 random sample packages selected from the lot for density determination.**

6. **Ensure the portable digital density meter is clean prior to testing. Any residual liquid should be drained, and the unit should be flushed with a small amount of the sample to be tested. Flush and discard the sample two times before taking a measurement.**

7. **To test the first package of the sample, follow the manufacturer's instructions to select the correct method, when using a meter with built in correction factors, and measure the density of the sample using a syringe or the built-in pump. Fill the specimen of the sample slowly and gently. If gas or air bubbles are present drain sample and refill. If the correction factor is not known, refer to step 9.**

Note: Instruments have built in stored correction factors for many products or see Table X.2.

(Can't remove highlight.)

Note: Use of a syringe may be desirable to allow sample specimen to achieve ambient temperature prior to introduction of specimen into testing cell and for viscous specimens.

8. **Once the temperature reading on the portable digital density meter has stabilized (maintained reading ± 0.2 °C (± 0.5 °F) for 10 seconds), record density and temperature as indicated on instrument. Instruments have a measurement mode setting that shall be set in the most "accurate" mode (e.g., precise mode) as defined by the manufacturer.**

9. **Apply the density coefficient of expansion (Alpha) also known as the density correction factor, to correct to the reference temperature. See Table X.2. Density Coefficient Factor (Alpha) If the Alpha correction is not known, then the factor can be calculated using the below formula.**

After this correction, this value is the density of the substance in the vacuum at the prescribed reference temperature. Calculating the Temperature Coefficient Alpha as used in Anton Paar instruments. See other instrument manuals for their alpha values and method of calculating alpha values for their specific instruments.

$$\text{Temperature coefficient Alpha} = \left|\frac{\rho^1 - \rho_2}{T^1 - T_2}\right|$$

ρ_1 …. density at temperature T_1

ρ_2 …. density at temperature T_2

T_1 …. temperature at initial measurement

T_2 …. temperature at second measurement

Notes:

- **If the density correction factor is not known but the volume correction factor is known, the density correction factor can be calculated from the volume correction (VCF) factor using the following formula.**

- **Density Temperature Factor Alpha = Absolute Value of VCF × Density.**

Note: Influence of viscosity on density result will be automatically corrected by the portable digital density meter for highly viscous samples.

10. Apply the apparent density correction by applying one of the following steps:

(1) multiplying the density by 0.999; or

(2) multiplying the density by the Apparent Mass Factor from Table X.4.; or

(3) calculate apparent density by using the following:

Converting True Density into Apparent Density

The apparent density is defined as:

$$Paap = \frac{Ptrue,sample - Pair}{1 - \frac{Pair}{8.0\ g/cm3}}$$

Where:

Paap = apparent density of the sample

Psteel = 8.0 g/cm3

Pair = true density of air

Ptrue,sample = true density of the sample

The apparent density is smaller than the true density and can be calculated from the true density considering the buoyancy of the sample in air and the weight and density of a reference weight in steel.

*** Pair = true density of air as calculated from equation in Table X.1. Density Measurement.**

After application of this factor or calculation, the new value is density of the substance in air.

11. Drain the instrument and repeat Steps 7–10 on a second specimen of the same package for verification of first measurement.

12. Note: It is not necessary to fully clean the cell between measurements for the second specimen of the same sample. Simply flush the cell using the same sample at least two times before taking your second measurement. Compare the two specimen readings, they must agree within 0.0003 g/cm^3. Calculate the average density of the two specimens from the sample. If the difference of two readings is greater than 0.0003 g/cm^3, discard results and repeat testing of sample. Air or undissolved gas will cause erroneous measurement errors. The user of the shall always visually inspect for undissolved gas in the measurement tube for a valid test.

13. Drain the instrument and repeat testing for the second (or subsequent) package of the sample, repeating Steps 6–12.

14. Calculate the Average Product Density of sample 1 and 2. The two results must agree within 0.0005 g/cm^3. If the difference between the densities of the two packages exceeds 0.0005 g/cm^3, use the volumetric procedure in Section 3.3. "Volumetric Test Procedure for Non-Viscous Liquids", or you may continue the testing of all the subsequent sample packages selected from the lot using Steps 6-13.

15. Determine the Average Used Dry Tare Weight of the sample according to provisions of Section 2.3.5. "Procedures for Determining Tare."

16. Calculate the "nominal gross weight" using the following formula:

Nominal Gross Weight = (Average Product Density [in weight units]) × (Labeled Volume) + (Average Used Dry Tare Weight)

17. Weigh the remaining packages in the sample.

18. Subtract the nominal gross weight from the gross weight of each package to obtain package errors in terms of weight. All sample packages are compared to the nominal gross weight.

19. To convert the average error or package error from weight to volume, use the following formula:

Package Error in Volume = Package Error in Weight ÷ Average Product Density Per Volume Unit of Measure

20. 3.X.3. Evaluation of Results

Follow the procedures in Chapter 2, Section 2.3.7. "Evaluate for Compliance" to determine lot conformance.

3.X.4. Cleaning and Storage of Digital Density Meter

Anytime the portable digital density meter is used to test a different commodity, or if the digital density meter use is done for the day and going to be stored after final use, the instrument shall be drained and cleaned following the manufacturer's recommended cleaning procedures and using two cleaning agents. The first cleaning agent removes sample residue, and the second cleaning agent removes the first cleaning agent. See Table X.5. Cleaning Agents for examples of cleaning agents recommended by a digital density meter manufacturer.

NOTE: If the unit will be immediately used to measure another sample of similar composition (e.g., milk with different fat contents, different viscosity oils), the unit may be drained and flushed with the new sample three times before the next analysis

If the density meter is not going to be used within 2 days, it is recommended that the measuring cell be dried using an external low-pressure air source. Bypassing the internal pump may be necessary to dry the measuring cell. After a thorough cleaning, connect the portable digital density meter to a low-pressure air source, (e.g., aquarium air pump) to dry the unit's measurement cell. This will ensure no buildup of deposits in the measuring cell and no long-term drift of the instrument calibration. To determine if the measuring cell is "dry", the density will display an air value of 0.0012 g/cm^3. See Table X.1. Air Density Calculation. If this value is not achieved, additional cleaning may be necessary.

Note: The digital density meter must be properly stored to avoid the possibility of any water residue within the measuring cell from freezing.

1

Table X.1. Air Density Calculation		
Calculate the density of air at the temperature of test using the following equation		
ρ_{air}, g/mL = 0.001293[273.15/T][P/760]		
Where:		
T = temperature, K, and		
P = barometric pressure, torr.		
°C	mmHg	d_{air}, g/mL
15.56	760	0.001223314

2

3

Table X.2. Density Coefficient Factor (Alpha)						
Notice: This Table is currently under development. Missing data will be added after additional research and validation is completed. (Rev 11/15/2022) **Note: Do not use these alpha values if they are outside the accepted temperature range as shown.**						
Product	**alpha(α1)/°C |(p1-p2)/(T1-T2)|**	**alpha(α2)/°C (d2/d1-1)/(T1-T2)**	**Temperature Range**	**Typical Density at ref temp, g/cm³**	**Source of derived information**	**Reference Temperature, °C**
Petroleum Products (use α1 (AntonPaar) or α2 (MettlerToledo) for specific instrument						
n-Heptane	-	-	-	-	-	15.56
Iso-Octane	0.00085	0.001243	10 - 30°C	-	NBS SRM 2213	15.56
n-Pentane	-	-	-	-	-	15.56
Toluene	0.00092	0.00107	10 - 30°C	0.8710	ASTM D1555	15.56
o-Xylene	0.00082	0.00094	10 - 30°C	0.8834	ASTM D1555	15.56
m-Xylene	0.00084	0.00098	10 - 30°C	0.8678	ASTM D1555	15.56
p-Xylene	0.00086	0.00101	10 - 30°C	0.8646	ASTM D1555	15.56
mixed Xylenes	0.00084	0.00098	10 - 30°C	-	ASTM D1555	-
-	-	-	-	-	-	-
Generalized Petroleum Products (ASTM D1250) Footnote [1]						
Automatic Transmission Fluid	API Density D	API Density D	4 - 44°C	-	ASTM/API/IP	15.56
Camp Fuel, White Gas	API Density B	API Density B	4 - 44°C	-	ASTM/API/IP	15.56
Diesel, heating oil	API Density B	API Density B	4 - 44°C	0.81 - 1.08	ASTM/API/IP	15.56

Engine Oil	API Density D	API Density D	4 - 44°C	-	ASTM/API/IP	15.56
Gasoline	API Density B	API Density B	4 - 44°C	0.65- 0.78	ASTM/API/IP	15.56
Kerosene, jet fuel	API Density B	API Density B	4 - 44°C	0.79 - 0.84	ASTM/API/IP	15.56
Mineral oil	API Density D	API Density D	4 - 44°C	-	ASTM/API/IP	15.56
Paint Thinner	API Density B	API Density B	4 - 44°C	-	ASTM/API/IP	15.56
Petroleum Ether	API Density B	API Density B	4 - 44°C	-	ASTM/API/IP	15.56
-	-	-	-	-	-	-
Other Liquids and Wine (use α1 (AntonPaar) or α2 (MettlerToledo) for specific instrument						
Acetic acid	-	-	-	-	-	20
Acetone	-	-	-	-	-	20
Alcohol, ethyl (ethanol) 100%	0.00086	0.00109	0 - 40°	0.79304	Measurement Canada	15.556
Alcohol, methyl	-	-	-	-	-	20
Ammonia	-	-	-	-	-	20
Aniline	-	-	-	-	-	20
Antifreeze 50/50 (ethylene glycol)	-	-	-	-	-	20
Diesel Exhaust Fluid	-	-	-	1.0870 - 1.0930	ISO 22241	20
Distilled Spirits	-	-	-	-	-	15.56
Ether	-	-	-	-	-	20
Ethyl acetate	-	-	-	-	-	20
Ethylene glycol	-	-	-	-	-	20
Glycerin (glycerol)	-	-	-	-	-	20
Isobutyl alcohol	-	-	-	-	-	20
Iso-propanol (70%)	-	-	-	-	-	20
Iso-propanol (91%)	-	-	-	-	-	20
Iso-propanol Anhydrous (100%)	0.00083	0.00107	5 -30 °C	0.7850	-	20
Methyl Ethyl Ethyl Ketone	-	-	-	-	-	20
Olive oil	-	-	-	-	-	20
Sulfuric acid, concentrated	-	-	-	-	-	20
Turpentine	-	-	-	-	-	20
Water	0.00021	0.00021	-	0.9982	NIST.IR.6969-2018 Table 9.10	20

Dairy Products (use α1 (AntonPaar) or α2 (MettlerToledo) for specific instrument						
Dairy Products	alpha(α1)/°C |(p1-p2)/(T1-T2)|	alpha(α2)/°C (d2/d1-1)/(T1-T2)	Temperature Range	Typical Density at 4°C	Source of derived information	Reference Temperature, °C
Homogenized milk	0.00025		4 - 20 °C	1.033	Footnote [2]	4.4
Milk, 2%	0.00022		4 - 20 °C	1.034	Footnote [2]	4.4
Skim milk	0.00019		4 - 20 °C	1.036	Footnote [2]	4.4
Fortified skim	0.00019		4 - 20 °C	1.041	Footnote [2]	4.4
Half and half	0.00044		4 - 20 °C	1.027	Footnote [2]	4.4
Half and half, fort.	0.00044		4 - 20 °C	1.031	Footnote [2]	4.4
Light cream	0.00056		4 - 20 °C	1.021	Footnote [2]	4.4
Heavy cream	0.00088		4 - 20 °C	1.008	Footnote [2]	4.4
Footnote: [1] Instrument with built in tables for Generalized Petroleum Products (ASTM D1250) [2] Goff, H.D., Hill A.R. "Dairy Chemistry and Physics", University of Guelph [3] Alpha (α1) values are used in Anton Paar Instruments [4] Alpha (α2) values are used in Mettler Toledo Instruments						

1

Table X.3. Viscosity Corrections of Common Materials

Note: Values for Viscosity and Corrections are published in XXXX.

Material	Viscosity in Centipoise (at 20° C)	Correction g/cc
Water	1 cP	
Milk	3 cP	
Castrol Oil	1,000 cP	0.0008
Karo Syrup	5,000 cP	0.0008
Honey	10,000 cP	0.00085

2

Table X.4. Apparent Mass Factor					
Elevation, ft	sea level	1500	3000	4500	6000
Barometer, mmHg	760	720	680	640	600
density, g/cc	Apparent Mass Factor				
0.500	0.9977	0.9979	0.9980	0.9981	0.9982
0.600	0.9981	0.9982	0.9983	0.9984	0.9985
0.700	0.9984	0.9985	0.9986	0.9987	0.9988
0.800	0.9986	0.9987	0.9988	0.9989	0.9989
0.900	0.9988	0.9989	0.9989	0.9990	0.9991
1.000	0.9989	0.9990	0.9991	0.9991	0.9992
1.100	0.9991	0.9991	0.9992	0.9992	0.9993
1.200	0.9991	0.9992	0.9992	0.9993	0.9993
1.300	0.9992	0.9993	0.9993	0.9993	0.9994
1.400	0.9993	0.9993	0.9994	0.9994	0.9994
1.500	0.9993	0.9994	0.9994	0.9994	0.9995
Elevation or prevailing barometric pressure at the location of measurement.					

1

Table X.5. Cleaning Agents (Examples of cleaning agents recommended by digital density meter manufacturers. Verify the proper cleaning agent for the digital density meter used based on manufacturers recommendation.)		
Commodity	Cleaning Liquid 1	Cleaning Liquid 2
Petroleum products	Toluene, petroleum naphtha, petroleum ether, n-nonane, cyclohexane	Ethanol
Battery acid	Tap water	Ultra-pure (bi-distilled or deionized) water
Liquid soap and detergent, shampoo	Tap water	Ultra-pure (bi-distilled or deionized) water
Salad dressing, mayonnaise	Petroleum naphtha, dish washing agent in water	Ethanol
Suntan lotion	Tap water	Ethanol
Spirits	Tap water	Ultra-pure (bi-distilled or deionized) water
Grape juice, syrup	Warm tap water	Ultra-pure (bi-distilled or deionized) water
Milk*	Tap water, enzymatic lab cleaner	Ultra-pure (bi-distilled or deionized) water

***NOTE: Do not introduce ethanol or other alcohols into instrument without first flushing all milk products from instruments.**

Previous Action:

2022: Voting – Returned to Committee

Original Justification:

Current test procedures are slow and awkward due to the need of using borosilicate glassware for package checking.
Digital density meters are fast, use small samples size (2 ml) and have built in thermometers.
Fast and accurate.
Using digital density meters equipped with built-in API density tables will not require the cooling samples to 60 F.
No need to "wet down" volumetric flasks before each measurement
Most non-food products may be recovered without contamination.
Only small sample size (2 ml) of the product is needed for testing.
No need for partial immersion thermometer or volumetric flasks.
Current method in "Section 3.4 Volumetric Test Procedures for Viscous Fluids – Headspace" does not work for plastic oblong bottles often used for motor oil.
Eliminates the entrapment of air in testing viscous fluids (i.e. motor oil, DEF, antifreeze, syrups, etc.)The submitter requested that this be a Voting Item in 2022.

A NIST intern had done an investigation on the use portable density meters and NIST published a report in 2006 based only on that intern's study. The study is incomplete as the report references data in the appendix which does not exist. Therefore, the information is questionable and not in step with available technology

The submitter requested that this be a Voting Item in 2022.

Comments in Favor:

Regulatory:

- None

Industry:

- None

Advisory:

Mr. David Sefcik, NIST OWM, recommended Assigned status for the item. Mr. Sefcik stated that prior to 2022 annual. OWM submitted comments for resolution. The submitter has made several significant changes and OWM continues to work with Mr. Hayes to develop the item and expect continued updates and changes. Mr. Sefcik also informed the body that the NIST lab/metrology group is assisting in this effort. He recommended that this item be assigned to a task group and encouraged states to give it some thoughtful consideration.

Comments Against:

Regulatory:

- None

Industry:

- None

Advisory:

- None

Neutral Comments:

Regulatory:

- None

Industry:

- None

Advisory:

- None

Item Development:

NCWM 2022 Interim Meeting: The Committee assigned Voting status for this item at the 2022 Interim Meeting.

The Committee believed the latest proposal was fully developed, addressed previous concerns and was therefore ready for a vote.

Additionally, the Committee believed the item provides a tool to Weights and Measures Officials that will improve efficiency during inspections while maintaining current testing accuracy levels.

Note: The Committee removed Table X.1. Density Coefficient Factor (Alpha) because it has not been validated. The Committee spoke to the original submitter, and they agreed that the proposal can still go forward as a Voting item without the table; it is not necessary for it to be included for field use.

The Committee received additional information on this item from NIST, OWM after the meeting stating the item is being reviewed by NIST, OWM. NIST, OWM submitted proposed changes and comments to the Committee for their consideration. These proposed changes and comments will be provided online to membership before the annual meeting.

NCWM 2022 Annual Meeting: The Committee assigned Voting status to this item at the 2022 Interim Meeting because they believed that previous concerns had been addressed and it was fully developed.

The submitter of the item provided new information and requested the following changes:

- Change “Volumetric” to “Gravimetric” in the title
- Amend the “minimum requirement” table to add additional requirements (2022 Publication 16, page L&R 74.
- Correct an error to the viscosity formula by removing the word “adding” and inserting the word “subtracting” 3.X.2. Test Procedure.

- Insert into "Measuring Range" table, the "Resolution" which includes Density of 0.0001 g/cm^3 and Temperature of 0.1 °C (0.1 °F), which was inadvertently left out in prior publications. This table is under Test Equipment 3.X.1.

Additionally, the Committee believed that Table X.1. Density Coefficient Factor (Alpha) was removed from the proposal during the 2022 Interim meeting by the Committee because it had not been validated. The Committee recommends that the submitter validate Table X.1. Density Coefficient Factor (Alpha) and reinsert it into the proposal and resubmit to the Committee for consideration.

The Committee also reviewed the NIST OWM Analysis of the item and considered comments during open hearings from NIST OWM. The use of this equipment has great potential to facilitate package testing for many viscous and non-viscous liquids, as well as other weights and measures inspection areas. Some concerns with the item under consideration is the limited testing analysis provided by the submitter comparing the digital density meter to the current NIST Handbook 133 volumetric test procedure. Data on only five items were submitted which is insufficient to statistically validate results to ensure the test procedure will be defensible for use in official inspections. Before this procedure can be determined for use as an Enforcement procedure, the proper calibration and validation methods of the device, limitations of the devices use, and whether adding a step for using a Viscometer to determine viscosity before determining the density would need to be considered.

It was also noted that none of the four Regions moved the item forward as a Voting Item.

Based on the above information, the Committee deescalated the item to Informational status with the intent of forming a task group to further develop the item.

During the voting session the Committee was strongly urged to return this item to Voting status by membership who were prepared to put forth a formal motion to amend the Committee report.

After deliberation the Committee agreed to amend the item based on the above bulleted proposed changes. Following the NCWM's democratic process the Committee returned this item to Voting status.

This change was announced by the Committee Chair and as requested by membership; he provided the reasons the Committee believed that the Item was not fully developed. The reasons were:

The NIST, OWM analysis identified areas that needed to be addressed before the item should be used for regulatory purposes.

Adding Table X.1. Density Coefficient Factor (Alpha) back into the procedures was a substantive change requiring time for membership to review before voting.

Concern that proceeding with the test procedure without addressing the NIST, OWM concerns could negatively impact regulatory actions.

The item was voted upon and only received 20 yea votes in the House of Representatives.

Since it did not receive the required minimum 27 votes it was returned to the Committee.

NCWM 2023 Interim Meeting:

The Committee assigned Withdrawn status to this item because the Committee believes it is not fully developed based on the comments cited below.

The current version has been changed from the item voted on at the NCWM 2022 Annual Meeting. The Developer submitted a new version of the item following the Fall 2022 Regional Meetings. The Committee believes the item still needs considerable work to develop it but the Developer and others do not have the resources to develop this item in a timely manner (Note: Doug Rathbun, L&R Chair made a request to the body for volunteers on this initiative. No one responded.)

The Committee feels that there have been many previous suggestions as to what it would take to make this item fully developed, including comments from NIST OWM. The Submitter has also made and continues to make substantial changes to the proposal as it continues to evolve.

Ms. Lisa Warfield, NIST OWM, informed the Committee that an inspector, Ms. Annie Tsou, from Los Angeles County who works for Mr. Floren, had difficulty using the procedure. She could not even utilize the equipment due to a lack of clarity in the equipment instructions. Ms. Warfield also informed the Committee that if they opted to withdraw the item it would not stop NIST OWM from helping Mr. Hayes.

At the time of open hearings, there was no one willing to lead a task group. The Committee believes this item has merit and hopes that someone will volunteer to chair a task group. In the event this happens the item could be resubmitted on a form 15 when the proposal was completed and appropriately developed.

The Committee recognizes the merit of the item and encourages the further development and resubmission of it.

Regional Associations' Comments:

WWMA 2022 Annual Meeting: Mr. David Sefcik, NIST OWM has worked extensively with the submitter. Engaged with lab metrology group to help validate performance and accuracy of meter. Does not believe that the procedure has been properly vetted. Does understand that the technology does work. The procedure needs to be worked for better ease of use and reliability. Needs to be clear and concise and contain all of the information needed. Recommends a task group be formed and this item be assigned, no jurisdictions have worked through the procedures and submitted comments or feedback.
Mr. Floren, LA County, stated that the procedure does work, but we need to see properly vetted data to support it. To prevent this item from going round and round, assign it to a national task group to gather additional data, testimonials, and work the item.
Mr. Ed Williams, Ventura County and Mr. Kevin Schnepp also supported this procedure but recommended it get assigned to a task group to validate and vet the procedure.

The WWMA L&R Committee recommends that this item be Assigned. The Committee recommends that the NCWM L&R Chair create a Task Group to include Mr. Hayes that can work to clarify and validate the test procedure to advance this proposal. This Task Group should be formed prior to the NCWM interim meeting in January 2023.

SWMA 2022 Annual Meeting: Ms. Lisa Warfield (NIST OWM) commented on the ongoing review of the language and the amount time and effort input by the submitter. She believes this item is not ready for voting status and that more work is still needed for inspector use. She recommended that NCWM develop a task group for this item.

Mr. Ken Ramsburg (Maryland) also suggested and supports a task group to work on this item.

There was a written update not accepted by the Committee due to its late submittal. provided by the submitter that the Committee nor the floor was able to review before open hearings. The Committee wants the National L&R Committee and Membership to comment on the latest updated language.

The Committee recommends this item as Information with the updated language.

CWMA 2022 Interim Meeting: Ron Hayes retired, and developer of this item commented he has been working with NIST's David Sefcik to address concerns. He stated this technology has been used for more than 50 years. He explained the changes made and believes it is ready for voting status. Ivan Hankins, Iowa, supports this item moving forward with voting status. Doug Rathbun, Illinois commented he is concerned this item is not fully developed if there is additional data that needs to be collected. Doug Musick, Kansas commented digital density meter technology is already in use in Kansas. He wants to see a final version move forward as a voting item. Mr. Musick further commented he believes NIST should be supporting this item and helping move it forward. Why aren't they? This item is well-established technology and would make the process of enforcement much more efficient. Mr. Hayes' most recent version to address NIST concerns is below. He noted that if the Alpha version of "Table X.2. Density Coefficient Factor" prohibits voting status for this item, it should be removed from the model language and could be used as reference in an appendix. The Committee asked the developer if the dashes in the table indicate the information is to be determined. Mr. Hayes indicated that this information is forthcoming. After considerable discussion, the Committee believes the item is fully developed and believes information for the table will continue to be added over time. However, the content of the Alpha table should not impede this item from voting status.

NET-22.2 –Section 3.1.1 Test Methods and 3.X. Gravimetric Test Procedure for Viscous and Non-Viscous Liquids by Portable Digital Density Meter.

Preamble under the Item Under Consideration:

Amend NIST Handbook 133, Checking the Net Contents of Packaged Goods, to modify Note 2 in Section 3.1.1. Test Methods and Section 3.X. Gravimetric Test Procedure for Viscous and Non-Viscous Liquids by Portable Digital Density Meter. Add a compliance test procedure for 3.X. Gravimetric Test Procedure for Viscous and Non-Viscous Liquids by Portable Density Meter as follows:

3.1.1. Test Methods

Notes:

(2) When checking liquid products using a volumetric or gravimetric procedure for **density determination**, the temperature of the samples must be maintained at the reference temperature ± 2 °C (± 5 °F), **except when using Section 3.X. Gravimetric Test Procedure for Viscous and Non-Viscous Liquids by Portable Digital Density Meter, where a correction factor is used to correct the density to the reference temperature.**

3.X. Gravimetric Test Procedure for Viscous and Non-Viscous Liquids by Portable Digital Density Meter

Use the following procedure for packages labeled in fluid volume.

Most portable digital density meters are suitable for measuring the density of homogenous liquids free of suspended gas, air, sediment, and suspended matter. Portable digital density meters should not be used for products such as orange juice with pulp, buttermilk, liquids requiring "shake before use", paint, carbonated products such as soda and beer, or substances not approved by the digital density meter manufacturer.

The suitability of a given meter for use with specific product types is determined based upon the specifications of the manufacturer, the intended application, and verification by a recognized laboratory.

A portable digital density meter must meet the following criteria:

- **Influence of viscosity on density result is automatically corrected for highly viscous samples.**
- **Bar Code reading technology (RFID) for inputting test methods.**
- **Built in data storage for storing test results.**
- **Printing capabilities to print test results.**
- **Resolution of 4 decimal places with an accuracy to 0.001 g/cm^3. Instrument has a measurement mode setting set to the most "accurate" mode (e.g., precise mode) as defined by the manufacturer.**

Note: Typically, portable digital density meters manufactured after 2??? meet this criteria, but user of the instruments should verify with the manufacturer.

The portable digital density meter shall be verified and approved in accordance with the manufacturers and other recognized calibration procedures before being put into service. The portable digital density meter must only be used in a manner for which it was designed and calibrated. This device must be routinely recertified according to your agency's measurement assurance policies. Refer to NIST HB 130 Section 11 (h) of Weights and Measures Law and NIST HB 133 Chapter 1, Section 1.7. Good Measurement Practices for additional guidance.

Verify the accuracy (calibration) of the PDDM before each initial daily use, before each use at new location, or when there is any indication of abnormal equipment performance (e.g., erratic indications). Recheck the PDDM accuracy (calibration) if it is found that the sample does not pass, to confirm that the test equipment is not at fault".

Users must consult with the manufacturers to ensure the brand and model automatically correct for viscosity for viscosities greater than 100 mPa·s. Viscosities less than 100 mPa·s do not require a viscosity correction.

This test procedure may be used as an alternative test procedure for the following Sections:

- **Section 3.2. Gravimetric Test Procedure for Non-Viscous Liquids.**
- **Section 3.3. Volumetric Test Procedure for Non-Viscous Liquids.**
- **Section 3.4. Volumetric Test Procedures for Viscous Fluids – Headspace.**

Note: Portable Digital Density Meters can also be used as a timesaver for screening products for product quality and product identification .

3.X.1. Test Equipment

- **A scale that meets the requirements in Chapter 2, Section 2.2. "Measurement Standards and Test Equipment."**

  To verify the scale has adequate resolution, use the following steps.

  - **Determine the density of the liquid.**
  - **Using the density, convert the labeled volume to weight.**
  - **Based on the labeled volume, determine the MAV using Table 2-6 "Maximum Allowable Variations for Packages Labeled by Liquid and Dry Volume" found in Appendix A.**
  - **Using the density, convert the MAV from volume to weight.**

- **Next verify that the scale division is no larger than MAV/6 for the package size under test.**

- **The smallest graduation on the scale must not exceed the weight value for MAV/6.**

Example:

Assume the inspector is using a scale with 1 g (0.002 lb) increments to test packages labeled 1 L (33.8 fl oz) that have an MAV of 29 mL (1 fl oz). Also, assume the inspector finds that the weight of 1 L of the liquid is 943 g (2.078 lb).

Density: ***1 L = 943 g (2.078 lb)***
MAV: ***29 mL (1 fl oz)***

- ***Convert the Density into mL and Fl oz:***

943 g ÷ 1000 mL= 0.943 g/mL
(2.07 8 lb ÷ 33.8 Fl oz = 0.061 4 lb/fl oz)

- ***Convert MAV from Volume (mL/fl oz) to Weight:***

29 mL × 0.943 g/mL = 27.347 g
(1 Fl oz × 0.061 4 lb/fl oz = 0.064 lb)

MAV in Weight/6: ***27.347 g ÷ 6 = 4.557 g 0.064 lb ÷ 6 = 0.010 lb***

In this example, the 1 g (0.002 lb) scale division is smaller than the MAV/6 value of 4.557 g (0.010 lb) so the scale is suitable for making a density determination.

- **Low pressure air pump (small) – (e.g., an aquarium air pump)**
- **Syringe (glass or plastic with a Luer fitting 5 mL or larger). The syringe should be free of any lubricating substances)**
- **Distilled or deionized water**
- **Cleaning agents (See Table 3.4. Cleaning Agents)**
- **Waste container**
- **Barometer for obtaining the prevailing barometric pressure, with an accuracy of ± 3.0 mmHg**
- **Thermometer for measuring air temperature with a tolerance of ± 1 °C (2 °F)**

Portable digital density meter meeting a minimum requirement of:

Measuring Range	
Density	0 – 3 g/cm^3
Temperature	0 – 40 °C (32 – 104 °F)[a]
Viscosity	0 – 1000 mPa·s
Accuracy[b]	
Density	0.001 g/cm^3
Temperature	0.2 °C (0.4 °F)
Repeatability s.d.	
Density	0.0005 g/cm^3
Temperature	0.1 °C (0.1 °F)
Resolution	
Density	0.0001 g/cm^3
Temperature	0.1 °C (0.1 °F)
Sample Volume	2 mL
Sample Temperature	max. 100 °C (212 °F)
Footnotes [a.] Filling at higher temperatures possible. [b.] Viscosity < 100 mPa·s, density < g/cm^3	

3.X.2. Test Procedure

1. **Follow Section 2.3.1. "Define the Inspection Lot." Use a "Category A" sampling plan in the inspection. Select a random sample**

2. **Bring the packages and their contents to a temperature, between the reference and ambient temperatures**

   Note: Some packages (e.g., flavored milk) may need to be gently rolled to mix the contents. Avoid shaking liquids, since shaking some products to mix them will entrap air that will affect density measurements.

3. **The portable digital density meter must be near ambient temperature and above the dew point of the ambient air to avoid causing condensation within the unit. Condensation must be avoided and could cause the digital density meter to malfunction and cause potential damage.**

4. **Using distilled or deionized water or other reference standard(s), validate the digital density meter per the manufacturer's calibration instructions. The portable digital density meter shall be validated to verify the accuracy (calibration) of the portable density meter before each initial daily use, before each use at new location, or when there is any indication of abnormal equipment performance (e.g., erratic indications). Recheck the portable density meter accuracy (calibration) if it is found that the sample does not pass, to confirm that the test equipment is not at fault. The digital density meter shall be calibrated using a standard sample, within an allowable density range of ± 0.0005 g/cm^3.**

5. **Select the first 2 random sample packages selected from the lot for density determination.**

6. **Ensure the portable digital density meter is clean prior to testing. Any residual liquid should be drained, and the unit should be flushed with a small amount of the sample to be tested. Flush and discard the sample two times before taking a measurement.**

7. **To test the first package of the sample, follow the manufacturer's instructions to select the correct method, when using a meter with built in correction factors, and measure the density of the sample using a syringe or the built-in pump. Fill the specimen of the sample slowly and gently. If gas or air bubbles are present drain sample and refill. If the correction factor is not known, refer to step 9.**

Note: Most instruments have built in stored correction factors Where are these built in values coming from and how can we determine the accuracy. Should we require the official or metrologist to validate these values before using.

Note: Use of a syringe may be desirable to allow sample specimen to achieve ambient temperature prior to introduction of specimen into testing cell and for viscous specimens.

8. **Once the temperature reading on the portable digital density meter has stabilized (maintained reading ± 0.2 °C (± 0.5 °F) for 10 seconds), record density and temperature as indicated on instrument. Instruments have a measurement mode setting that shall be set in the most "accurate" mode (e.g., precise mode) as defined by the manufacturer.**

Apply the density coefficient of expansion (Alpha) also known as the density correction factor, to correct to the reference temperature. See Table X.2. Density Coefficient Factor (Alpha) If the Alpha correction is not known, then the factor can be calculated using the below formula.

After this correction, this value is the density of the substance in the vacuum at the prescribed reference temperature. Calculating the Temperature Coefficient Alpha

$$\text{Temperature coefficient Alpha} = \left|\frac{\rho_1 - \rho_2}{T_1 - T_2}\right|$$

ρ_1 …. density at temperature T_1

ρ_2 …. density at temperature T_2

T_1 …. temperature at initial measurement

T_2 …. temperature at second measurement

Notes:

- **If the density correction factor is not known but the volume correction factor is known, the density correction factor can be calculated from the volume correction factor using the following formula.**

- **Density Temperature Factor Alpha = Absolute Value of Beta × Density.**

Note: Influence of viscosity on density result will be automatically corrected by the portable digital density meter for highly viscous samples.

10. Apply the apparent density correction by applying one of the following steps:

(1) multiplying the density by 0.999; or

(2) multiplying the density by the Apparent Mass Factor from Table X.4.; or

(3) calculate apparent density by using the following:

Converting True Density into Apparent Density

The apparent density is defined as:

$$Paap = \frac{Ptrue,sample - Pair}{1 - \frac{Pair}{8.0\ g/cm3}}$$

Where:

Paap = apparent density of the sample

Psteel = 8.0 g/cm3

Pair = true density of air

Ptrue,sample = true density of the sample

The apparent density is smaller than the true density and can be calculated from the true density considering the buoyancy of the sample in air and the weight and density of a reference weight in steel.

*** Pair = true density of air as calculated from equation in Table X.1. Density Measurement.**

After application of this factor or calculation, the new value is density of the substance in air.

11. Drain the instrument and repeat Steps 7–10 on a second specimen of the same package for verification of first measurement.

12. Note: It is not necessary to fully clean the cell between measurements for the second specimen of the same sample. Simply flush the cell using the same sample at least two times before taking your second measurement. Compare the two specimen readings, they must agree within 0.0003 g/cm^3. Calculate the average density of the two specimens from the sample. If the difference of two readings is greater than 0.0003 g/cm^3, discard results and repeat testing of sample. Air or undissolved gas will cause erroneous measurement errors. The user of the shall always visually inspect for undissolved gas in the measurement tube for a valid test.

13. Drain the instrument and repeat testing for the second (or subsequent) package of the sample, repeating Steps 6–12.

14. Calculate the Average Product Density of sample 1 and 2. The two results must agree within 0.0005 g/cm^3. If the difference between the densities of the two packages exceeds 0.0005 g/cm^3, use the volumetric procedure in Section 3.3. "Volumetric Test Procedure for Non-Viscous Liquids", or you may continue the testing of all the subsequent sample packages selected from the lot using Steps 6-13.

15. Determine the Average Used Dry Tare Weight of the sample according to provisions of Section 2.3.5. "Procedures for Determining Tare."

16. Calculate the "nominal gross weight" using the following formula:

Nominal Gross Weight = (Average Product Density [in weight units]) × (Labeled Volume) + (Average Used Dry Tare Weight)

17. Weigh the remaining packages in the sample.

18. Subtract the nominal gross weight from the gross weight of each package to obtain package errors in terms of weight. All sample packages are compared to the nominal gross weight.

19. To convert the average error or package error from weight to volume, use the following formula:

Package Error in Volume = Package Error in Weight ÷ Average Product Density Per Volume Unit of Measure

20. 3.X.3. Evaluation of Results

Follow the procedures in Chapter 2, Section 2.3.7. "Evaluate for Compliance" to determine lot conformance.

3.X.4. Cleaning and Storage of Digital Density Meter

Anytime the portable digital density meter is used to test a different commodity, or if the digital density meter use is done for the day and going to be stored after final use, the instrument shall be drained and cleaned following the manufacturer's recommended cleaning procedures and using two cleaning agents. The first cleaning agent removes sample residue, and the second cleaning agent removes the first cleaning agent. See Table X.5. Cleaning Agents for examples of cleaning agents recommended by a digital density meter manufacturer.

NOTE: If the unit will be immediately used to measure another sample of similar composition (e.g., milk with different fat contents, different viscosity oils), the unit may be drained and flushed with the new sample three times before the next analysis.

If the density meter is not going to be used within 2 days, it is recommended that the measuring cell be dried using an external low-pressure air source. Bypassing the internal pump may be necessary to dry the measuring cell. After a thorough cleaning, connect the portable digital density meter to a low-pressure air source, (e.g., aquarium air pump) to dry the unit's measurement cell. This will ensure no buildup of deposits in the measuring cell and no long-term drift of the instrument calibration. To determine if the measuring cell is "dry", the density will display an air value of 0.0012 g/cm^3. See Table X.1. Air Density Calculation. If this value is not achieved, additional cleaning may be necessary.

Note: The digital density meter must be properly stored to avoid the possibility of any water residue within the measuring cell from freezing.

Table X.1. Air Density Calculation		
Calculate the density of air at the temperature of test using the following equation		
ρ_{air}, g/mL = 0.001293[273.15/T][P/760]		
Where:		
T = temperature, K, and		
P = barometric pressure, torr.		
°C	mmHg	d_{air}, g/mL
15.56		

Table X.2. Density Coefficient Factor (Alpha)

Notice: This Table is currently under review. Do not use without validation.

Ron to add a new columns indicating the source of alpha values verified at a specific temperature range.

Note: Do not use these alpha values if they are outside the accepted temperature range as shown.

Product	alpha/°C	Typical Density at 20°C, g/cm^3	Reference Temperature, °C
Petroleum Products			
Benzene	0.00125	0.989	15.56
n-Heptane	0.00124	0.684	15.56
Gasoline	0.00095	0.74	15.56
Kerosene, jet fuel	0.00099	0.81	15.56
Oil (unused engine oil)	0.0007	-	15.56
Paint Thinner	-	-	15.56
Paraffin oil	0.000764	-	15.56
n-Pentane	0.00158	-	15.56
Toluene	0.00108	-	15.56
-	-	-	-

Generalized Petroleum Products (ASTM D1250 Table 54B)	-	-	-
-	-	-	-
Distilled Spirits	-	-	**15.56**
-	-	-	-
Other Liquids and Wine			
Acetic acid	**0.0011**	-	**20**
Acetone	**0.00143**	**0.799**	**20**
Alcohol, ethyl (ethanol)	**0.00109**	**0.789**	**20**
Alcohol, methyl	**0.00149**	**0.792**	**20**
Ammonia	**0.00245**	-	**20**
Aniline	**0.00085**	**1.022**	**20**
Ether	**0.0016**	-	**20**
Ethyl acetate	**0.00138**	-	**20**
Ethylene glycol	**0.00057**	**1.115**	**20**
Isobutyl alcohol	**0.00094**	-	**20**
Glycerin (glycerol)	**0.0005**	**1.261**	**20**
Olive oil	**0.0007**	-	**20**
Sulfuric acid, concentrated	**0.00055**	-	**20**
Turpentine	**0.001**	-	**20**
Water	**0.00018**	**0.9982**	**20**
-	-	-	-
Diesel Exhaust Fluid	**0.00022**	**1.08805**	**20**
-	-	-	-
Dairy Products	**alpha/°C**	**Typical Density at 4°C, kg/L**	**Reference Temperature, °C**
Homogenized milk	**0.00025**	**1.033**	**4**
Skim milk, pkg	**0.00019**	**1.036**	**4**
Fortified skim	**0.00019**	**1.041**	**4**
Half and half	**0.00044**	**1.027**	**4**
Half and half, fort.	**0.00044**	**1.031**	**4**

Light cream	0.00056	1.021	4
Heavy cream	0.00088	1.008	4

1
2

Table X.3. Viscosity Corrections of Common Materials Note: Values for Viscosity and Corrections are published in XXXX.		
Material	Viscosity in Centipoise (at 20° C)	Correction g/cc
Water	1 cP	
Milk	3 cP	
SAE 10 Motor Oil	85–140 cP	0.0003
SAE 20 Motor Oil	140–420 cP	0.0006
SAE 30 Motor Oil	420–650 cP	0.0007
SAE 40 Motor Oil	650–900 cP	0.0007
Castrol Oil	1,000 cP	0.0008
Karo Syrup	5,000 cP	0.0008
Honey	10,000 cP	0.00085

3

Table X.4. Apparent Mass Factor					
Elevation, ft	sea level	1500	3000	4500	6000
Barometer, mmHg	760	720	680	640	600
density, g/cc	Apparent Mass Factor				
0.500	0.9977	0.9979	0.9980	0.9981	0.9982
0.600	0.9981	0.9982	0.9983	0.9984	0.9985
0.700	0.9984	0.9985	0.9986	0.9987	0.9988
0.800	0.9986	0.9987	0.9988	0.9989	0.9989
0.900	0.9988	0.9989	0.9989	0.9990	0.9991
1.000	0.9989	0.9990	0.9991	0.9991	0.9992
1.100	0.9991	0.9991	0.9992	0.9992	0.9993
1.200	0.9991	0.9992	0.9992	0.9993	0.9993
1.300	0.9992	0.9993	0.9993	0.9993	0.9994
1.400	0.9993	0.9993	0.9994	0.9994	0.9994
1.500	0.9993	0.9994	0.9994	0.9994	0.9995
Elevation or prevailing barometric pressure at the location of measurement.					

4

Table X.5. Cleaning Agents

(Examples of cleaning agents recommended by digital density meter manufacturers. Verify the proper cleaning agent for the digital density meter used based on manufacturers recommendation.)

Commodity	Cleaning Liquid 1	Cleaning Liquid 2
Petroleum products	Toluene, petroleum naphtha, petroleum ether, n-nonane, cyclohexane	Ethanol
Battery acid	Tap water	Ultra-pure (bi-distilled or deionized) water
Liquid soap and detergent, shampoo	Tap water	Ultra-pure (bi-distilled or deionized) water
Salad dressing, mayonnaise	Petroleum naphtha, dish washing agent in water	Ethanol
Suntan lotion	Tap water	Ethanol
Spirits	Tap water	Ultra-pure (bi-distilled or deionized) water
Grape juice, syrup	Warm tap water	Ultra-pure (bi-distilled or deionized) water
Milk*	Tap water, enzymatic lab cleaner	Ultra-pure (bi-distilled or deionized) water

***NOTE: Do not introduce ethanol or other alcohols into instrument without first flushing all milk products from instruments.**

NEWMA 2022 Interim Meeting: At the 2022 NEWMA Interim Meeting Lisa Warfield, NIST Technical Advisor commented that NIST OWM has submitted online comments and is working closely with the submitter, Mr. Hayes as well as in-house. NIST believes the item could substantially improve the efficiency of inspectors but does not believe the item is ready for voting status. Ron Hayes, retired regulator from Missouri, commented that he has been working with NIST's David Sefcik and has attempted to address every concern NIST has submitted to him. Mr. Hayes has also submitted an updated version and has reinserted some additional data in a table that previously was not complete. He added RFID requirements to upload more methods (different products) which can be tested by the device. While he has worked with primarily one manufacturer, he has reached out to others who are slow to respond. Chair Sakin commented that he is concerned that the newest version has not been reviewed by the full membership. Ms. Warfield acknowledged that NIST has received Mr. Hayes' latest version for review. John McGuire, New Jersey commended Mr. Hayes for his work as well as NIST for purchasing new density meters to advance this item in the NIST lab. Mr. McGuire recommends the item be given Assigned status to get additional data and work that needs to be completed. Walt Remmert, Pennsylvania and Jim Cassidy concur. The Committee recommends that this item be given Assigned status so work can be completed to get the instrument in the field for use. The Committee recommends Assigned status for this item.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.com/publication-15 to review these documents.

OTH – OTHER ITEMS

OTH-07.1 D Fuels and Lubricants Subcommittee

Source:
NCWM Fuels and Lubricants Subcommittee (FALS)

Purpose:
Provide an update of the activities of this Subcommittee which works on direction from and reports to the L&R Committee. The mission of FALS is to assist the L&R Committee in the development of agenda items that affect Handbook 130, Uniform Fuels and Automotive Lubricants Inspection Law and Uniform Fuels and Automotive Lubricants Regulation. The Subcommittee consists of regulators and associate members who have subject matter expertise in fuels and lubricants. The Subcommittee will be called upon to aid in the development, provide guidance, and help establish NCWM position on items concerning fuels and lubricants.

Item Development:
NCWM 2023 Interim Meeting: Ms. Vanessa Benchea provided the following written report on the activities of the Fuels and Lubricants Subcommittee (FALS) which reports and provides recommendations to the Laws and Regulations Committee.

For more information or to provide comment, please contact the FALS Chair:

Ms. Vanessa Benchea

Florida Department of Agriculture and Consumer Services/Division of Consumer Services

(813) 868-8263, **Vanessa.Benchea@fdacs.gov**

FALS met on Sunday, January 08, 2023, at the 2023 NCWM Interim Meeting in Savannah, GA, to review items related to fuel and automotive fluid standards that appear on the L&R agenda. A brief update received from Joanna Johnson, the Informal Focus Group Chair working on Item Block 6, an item currently assigned to FALS, was presented to the Subcommittee. There were also brief discussions of Item Block 1, Item Block 2, as well as FLR-23.3 and FLR-23.4. The following is a brief summary of the items discussed.

Item Block 6 Transmission Fluid Focus Group: This IFG was formed in 2020 because while the model regulation for transmission fluid in NIST Handbook 130 is sufficient, there is no licensing system for transmission fluid as there is with engine oils. Unable to attend the 2023 Interim meeting, IFG Chair Joanna Johnson (Automotive Oil Change Association) reiterated the following statement in her update about the future path of the IFG: "The group has reached agreement that (1) designating transmission fluid "obsolete" is impractical for a variety of reasons, including lack of a comprehensive and consistent standards setting organization mechanism, and therefore the original amendment approach should no longer be pursued; and (2) that they should switch focus to developing other potential consumer protection language for labels. The latter, for instance, may involve exploring general references to checking one's owner's manual for transmission fluid recommendations." She also added that "there may also be an issue with needing to distinguish EV transmission fluids from gear oil."

Item Block 1 (B1) Renewable Diesel and Diesel: Chuck Corr gave a presentation on this item. During his discussion with the Subcommittee, he presented that a more holistic approach should be taken in this endeavor and that he intends to lead a group of volunteers (i.e., request an Informal Focus Group) to review all of HB 130 with the goal of the harmonizing the definitions of middle distillates. Shailesh Lopez encouraged any work in the focus group include labeling considerations when determining definitions.

Item Block 2 (B2) Gasoline: Chuck Corr presented language for Item Block 2 to the Subcommittee, which included suggested changes from the Central Weights and Measures Association, Marilyn Herman (Herman and Associates) and other various parties that were consulted with. To also harmonize the text between sections 2.20.2 and 3.2.5, Chuck presented a change to use volume % instead of mass % in section 2.20.2 in which there was no opposition. Mr. Corr believed this item was fully developed and ready for a voting status. The Subcommittee concurred. During this discussion Marilyn Herman (Hermann and Associates) reiterated the broader need for consistency throughout the Handbooks regarding how federal regulations are cited. Bill Striejewske commented he related to the L&R Committee that the issue was broader than a FALS issue.

FALS had time to review additional fuels related items during their meeting and provides the following comments to the Committee.

FLR-23.3 Section 2.20. Hydrogen Fuel & FLR-23.4 Section 4.3. Dispenser Filters: Spencer Quong (Quong and Associates, representing Toyota) gave a brief presentation on the importance of Hydrogen Quality and the need for a filter requirement to provide background and support of the proposed changes.

FLR-23.3 Section 2.20. Hydrogen Fuel - The proposed change to this section would add an additional standard, ISO 14687 Grade (D) "Hydrogen fuel quality – Product specification", which could cause some difficulty for regulators to adopt and cause confusion as to which standard to follow since there could be "Harmonization Gap" between the two referenced standards when they are not aligned. The consensus from the group was that there was agreement that one standard should be referenced, and that stakeholders and suppliers should be consulted for direction on which standard was more appropriate. Mr. Schnepp recommended Informational status and suggests getting input from other OEMs and industry members. Lisa Warfield, NIST, clarified that Grade D would be specific to road vehicles only.

FLR-23.4 Section 4.3. Dispenser Filters - Mr. Schnepp commented that he supports FLR 23.4 and felt it was ready for voting status. There were no objections heard from the Subcommittee, except that NIST believed the change did not belong in the section proposed and should be placed in its own subsection (4.3.3) and not under 4.3.1 Engine Fuel Dispensers. Chuck Corr suggested that instead of creating a subsection for this single item, changing the engine fuels definition to include fuel cells to generate electricity might be more appropriate.

FALS Standard Operating Procedures: During discussion of old business Kristi Moore (Growth Energy) requested a status update of the Subcommittee's Standard Operation Procedures (SOP). Bill Striejewski, previous FALS Chair, stated that recommendations and changes discussed at the FALS meeting held at the 2022 NCWM Annual meeting had been incorporated and is now the current version which will be posted to the website for the Subcommittee to view. There was also clarification that the Subcommittee can continue to operate under this SOP and this item will be coming off of the Board of Director's agenda.

Regional Associations' Comments:

<u>WWMA 2022 Annual Meeting</u>: The WWMA L&R Committee would like to thank the FALS for their report.

The WWMA L&R Committee Recommend as a developing item on the NCWM Agenda

<u>SWMA 2022 Annual Meeting</u>: No comments or updates were provided.

The SWMA L&R Committee Recommends this as a developing item on the NCWM Agenda

<u>CWMA 2022 Interim Meeting:</u> Mike Harrington, Iowa and member of FALS commented there hasn't been any activity since the Annual Meeting. The new FALS chairperson is Vanessa Benchea.

The CWMA L&R Committee recommend this as a developing item on the NCWM agenda.

<u>NEWMA 2022 Interim Meeting:</u> No comments were heard.

The NEWMA L&R Committee Recommend this as a developing item on the NCWM agenda.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.com/publication-15 to review these documents.

OTH-11.1 D Packaging and Labeling Subcommittee

Source:
NCWM Packaging and Labeling Subcommittee (PALS)

Purpose:
Provide an update of the activities of this Subcommittee which reports to the L&R Committee. The mission of PALS is to assist the L&R Committee in the development of agenda item, NCWM positions and new standards related to packaging and labeling. The Subcommittee will also be called upon to provide important and much needed guidance to the regulatory and consumer packaging communities on difficult questions. PALS will report to NCWM L&R Committee. The Subcommittee is comprised of a Chair, eight voting members, and anyone interested in packaging and labeling standards.

Original Justification:
This item is to provide a report on the activities of the Packaging and Labeling Subcommittee which reports and provides recommendations to the Laws and Regulations Committee.

For more information or to provide comment, please contact the PALS Chair:

Mr. Chris Guay
CGGT
513-652-6597, guay.cb@gmail.com

PALS is comprised of four voting regulatory officials (one from each region) and four voting members from industry (retailers and manufacturers) in addition to its Chair and NIST Technical Advisor. Members of NCWM can participate in the PALS meetings by contacting Chair Guay. PALS work is being developed through monthly webinar meetings and at the NCWM meetings. PALS members are responsible for providing updates at their Regional Meetings. Chair Guay added PALS will be developing proposals and in addition providing guidance and recommendations on existing proposals as assigned by the NCWM L&R Committee. He stressed the importance of having key federal agencies (FDA, FTC, and USDA) participating.

Item Development:
NCWM 2023 Interim Meeting: Chairman Chris Guay provided the following written report on the activities of the Packaging and Labeling Subcommittee to the Laws and Regulations Committee.

At the 2023 NCWM Interim Meeting, Chairman Guay conducted a detailed review of the status and next steps for the proposed e-commerce regulation on the L&R agenda. PALS confirmed the only further comments received by any member were minor edits suggested by NIST in mid-December. PALS reviewed the edits to determine which should be brought before the committee during open hearings and to be included in the proposal following the annual meeting and which could be made editorially with at the discretion of L&R. Based on all member input, PALS will recommend the proposal for Voting status at the L&R open hearing.

PALS has a video meeting scheduled with US Federal Trade Commission to provide FTC with and overview of the NCWM, PALS, and the e-commerce proposal.

PALS will focus its efforts after the 2023 Interim Meeting to continue outreach on the e-commerce proposal and to finalize an NCWM best practice document on the topic of quantity-related statements appearing on a package PDP.

Regional Associations' Comments:

WWMA 2022 Annual Meeting: The WWMA L&R Committee would like to thank the PALS for their report.

The WWMA L&R Committee Recommend as a developing item on the NCWM Agenda

SWMA 2022 Annual Meeting: No comments were heard from the floor.

The SWMA L&R Committee Recommends this as a developing item on the NCWM Agenda

CWMA 2022 Interim Meeting: Chris Guay, Chair of PALS, commented the Subcommittee has been working to establish consistency between the handbooks and the FPLA. The Subcommittee is providing comments to federal agencies when and where appropriate.

The CWMA L&R Committee recommend this as a developing item on the NCWM agenda.

NEWMA 2022 Interim Meeting: No comments were heard.

The NEWMA L&R Committee recommends this as a developing item on the NCWM agenda.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.com/publication-15 to review these documents.

ITEM BLOCK 1 (B1) RENEWABLE DIESEL AND DIESEL

Source:
CC Consulting, LLC

Purpose:
Further refine the changes related to biodiesel made at the 2022 annual meeting. This proposal also includes needed updates related to renewable diesel.

B1: MOS-23.1 A Sections 2.31. Biodiesel and biodiesel Blends that Contain Greater Than or Equal to 21% by Volume Biodiesel. and 2.40. Diesel Fuel.

Item under Consideration:
Amend Handbook 130, Uniform Regulation for the Method of Sale of Commodities as follows:

2.31. Biodiesel and Biodiesel Blends that contain greater than or equal to 21 % by volume biodiesel.

2.31.1. Identification of Product. – Biodiesel shall be identified by the term "Biodiesel" with the designation "B100." ~~**Biodiesel**~~ Blends **that contain greater than 20 % by volume biodiesel** shall be identified by the term "Biodiesel Blend."

2.31.2. Labeling of Retail Dispensers.

2.31.2.1. Labeling of Grade Required. – Biodiesel and biodiesel blends **that contain greater than 20 % by volume biodiesel** shall be identified in accordance with both EPA and FTC requirements.

~~**2.31.2.2. Automotive Fuel Rating. – Biodiesel and biodiesel blends shall be labeled with its automotive fuel rating in accordance with 16 CFR 306.**~~

2.31.2.3. Biodiesel Blends. – When biodiesel blends greater than 20 % by volume are offered by sale, each side of the dispenser where fuel can be delivered shall have a label conspicuously placed that states "Consult Vehicle Manufacturer Fuel Recommendations." The lettering of this legend shall not be less than 6 mm (1/4 in) in height by 0.8 mm (1/32 in) stroke; block style letters and the color shall be in definite contrast to the background color to which it is applied.

2.31.3. Documentation for Dispenser Labeling Purposes. – The retailer shall be provided, at the time of delivery of the fuel, a declaration of the volume percent biodiesel on an invoice, bill of lading, shipping paper, or other document. This documentation is for dispenser labeling purposes only; it is the responsibility of any potential blender to determine the amount of biodiesel in the diesel fuel prior to blending.

~~**2.31.4. Exemption.** Biodiesel blends that contain less than or equal to 5 % biodiesel by volume are exempt from the requirements of Sections 2.31.1. Identification of Product, 2.31.2. Labeling of Retail Dispensers, and 2.31.3. Documentation for Dispenser Labeling Purposes when it is sold as diesel fuel.~~
(Added 2008) (Amended 2022**, and 20XX**)

2.40. Diesel Fuel. – Shall meet the following requirements, based on the biodiesel concentration of the fuel:

(a) Diesel fuel that contains less than or equal to 5 % by volume biodiesel shall meet the latest version of ASTM D975, "Standard Specifications for Diesel Fuels" and shall be sold as diesel fuel.

(b) Diesel fuel that contains greater than or equal to 6 % by volume biodiesel and that contains less than or equal to 20 % by volume shall meet the latest version of ASTM D7467, "Standard Specifications for Diesel Fuel Oil, Biodiesel Blend (B6 to B20)."

(c) Only fuel additive registered with the U.S. EPA may be used to additize diesel fuel, and the final product shall meet the latest version of ASTM D975 and/or ASTM D7467.

2.40.1. Premium Diesel Fuel. – All diesel fuels identified on retail dispensers as premium, super, supreme, or premier must conform to the following minimum requirements.

(a) **Cetane Number.** – A minimum cetane number of 47.0 as determined by the latest version of ASTM D613, "Standard Test Method for Cetane Number of Diesel Fuel Oil."

NOTE: ASTM D613, "Standard Test Method for Cetane Number of Diesel Fuel Oil" is the referee method; however, the following methods can be used to determine cetane number: the latest version of ASTM D6890, "Standard Test Method for Determination of Ignition Delay and Derived Cetane Number" (DCN) of Diesel Fuel Oils by Combustion in a Constant Volume Chamber"; and ASTM D7668, "Standard Test Method for Determination of Derived Cetane Number (DCN) of Diesel Fuel Oils–Ignition Delay and Combustion Delay Using a Constant Volume Combustion Chamber Method."

(b) **Low Temperature Operability.** – A cold flow performance measurement which meets the latest version of ASTM D975, "Standard Specification for Diesel Fuel," tenth percentile minimum ambient air temperature charts and maps by the latest version of either ASTM D2500, "Standard Test Method for Cloud Point of Petroleum Products and Liquid Fuels" or ASTM Standard D4539, "Standard Test Method for Filterability of Diesel Fuels by Low-Temperature Flow Test (LTFT)." The latest version of ASTM D6371, "Standard Test Method for Cold Filter Plugging Point of Diesel and Heating Fuels" may be used when the test results are a maximum of 6 °C below the Cloud Point. Low temperature operability is only applicable October 1 to March 31 of each year.

(c) **Lubricity.** – A maximum wear scar diameter of 460 micrometers as determined by the latest version ASTM D6079, "Standard Test Method for Evaluating Lubricity of Diesel Fuels by the High-Frequency Reciprocating Rig (HFRR)."

NOTE: The latest version of ASTM D6079, "Standard Test Method for Evaluating Lubricity of Diesel Fuels by the High-Frequency Reciprocating Rig (HFRR)" is the referee method; however, the latest version of ASTM D7688, "Standard Test Method for Evaluating Lubricity of Diesel Fuels by the High-Frequency Reciprocating Rig (HFRR) by Visual Observation" can be used.

(d) **Corrosion.** – A minimum rating of B+ as determined by the most recent version of NACE TM0172, "Determining Corrosive Properties of Cargoes in Petroleum Product Pipelines."

NOTE: The latest recent version of NACE TM0172 "Determining Corrosive Properties of Cargoes in Petroleum Product Pipelines" is the referee method. The latest version of ASTM D7548 "Standard Test Method for Determination of Accelerated Iron Corrosion in Petroleum Products" can be used.

(e) **Filter Blocking Tendency (FBT)** – A maximum of 2.2 by the latest version of ASTM D2068, "Standard Test Method for Determining Filter Blocking Tendency", following procedure B.

(f) **Injector Deposit Control.** – Maximum power loss in keep-clean mode of 2 % by the latest version of Coordinating European Council, CEC F-98-08, "Direct Injection, Common Rail Diesel Engine Nozzle Coking Test."

2.40.2. Use of Other Diesel Terminology. – For any terms other than premium, super, supreme, or premier included in the diesel fuel product or grade name and/or advertisements and claims displayed on dispensers, pump toppers, pole signs and bollard signs which imply improved performance, the product must have a clearly-defined fuel property with a substantiated functional benefit. Such property must be measurable utilizing industry accepted test methodologies developed by recognized standards organizations such as ASTM, SAE, and CEC to allow verification of the improved performance.

2.40.3 Labeling requirements – Diesel fuel containing more than 5 % by volume of biodiesel or more than 5 % by volume of renewable diesel shall be identified in accordance with both EPA and FTC requirements.

(Added 2021) **(amended 20XX)**

B1: FLR-23.1 A Sections 1.9. Biodiesel Blend., 1.27. Fuel Oil., 1.XX. Renewable Diesel., 3.3.2. Automotive Fuel Rating., 3.15. Biodiesel and Biodiesel Blends Containing Greater than 20% by Volume Biodiesel.,

Item Under Consideration:

Amend the Uniform Fuels and Automotive Lubricants Regulation as follows:

1.8. Biodiesel. – A fuel comprised of at least 99 % by volume mono-alkyl esters of long chain fatty acids derived from vegetable oils or animal fats, designated B100 or B99.
(Amended 2018)

1.9. Biodiesel Blend. – A fuel comprised of a blend of biodiesel with hydrocarbon diesel fuel **and containing greater than 20 % by volume biodiesel**.
(Amended 2018**, and 20XX**)

1.15. Diesel Fuel. – A refined hydrocarbon suitable for use as a fuel in a compression-ignition (diesel) internal combustion engine that may contain a combination of biodiesel, renewable diesel, and fuel additives.
(Amended 2018)

1.27. Fuel Oil. – Refined oil middle distillates, heavy distillates, or residues of refining, or blends of these, suitable for use as a fuel for heating or power generation. **The fuel may be refined from petroleum or biomass and may contain biodiesel and fuel additives.**

1.56. Wholesale Purchaser Consumer. – Any person who is an ultimate consumer of gasoline, fuel methanol, ethanol flex fuel, diesel fuel, biodiesel, biodiesel blends, fuel oil, kerosene, aviation turbine fuels, natural gas, compressed natural gas, or liquefied petroleum gas and who purchases or obtains the product from a supplier and receives delivery of that product into a storage tank.
(Added 1998) (Amended 1999 and 2014)

1.XX Renewable Diesel. – A refined middle distillate hydrocarbon produced from biomass and suitable for use as a fuel in a compression-ignition (diesel) internal combustion engine.

Section 2. Standard Specifications

2.2. Diesel Fuel. – Shall meet the following requirements, based on the biodiesel concentration of the fuel:

(a) Diesel fuel that contains less than or equal to 5 % by volume biodiesel shall meet the latest version of ASTM D975, "Standard Specifications for Diesel Fuels" and shall be sold as diesel fuel.

(b) Diesel fuel that contains greater than or equal to 6 % by volume biodiesel and that contains less than or equal to 20 % by volume shall meet the latest version of ASTM D7467, "Standard Specifications for Diesel Fuel Oil, Biodiesel Blend (B6 to B20)."

(c) Only fuel additive registered with the U.S. EPA may be used to additize diesel fuel, and the final product shall meet the latest version of ASTM D975 and/or ASTM D7467.
(Amended 2003 and 2018)

2.2.1. Premium Diesel Fuel. – All diesel fuels identified on retail dispensers as premium, super, supreme, or premier must conform to the following minimum requirements:

(a) **Cetane Number.** – A minimum cetane number of 47.0 as determined by the latest version of ASTM D613, "Standard Test Method for Cetane Number of Diesel Fuel Oil."

NOTE: ASTM D613, "Standard Test Method for Cetane Number of Diesel Fuel Oil" is the referee method; however, the following methods can be used to determine cetane number: the latest version of ASTM D6890, "Standard Test Method for Determination of Ignition Delay and Derived Cetane Number" (DCN) of Diesel Fuel Oils by Combustion in a Constant Volume Chamber"; and ASTM D7668, "Standard Test Method for Determination of Derived Cetane Number (DCN) of Diesel Fuel Oils—Ignition Delay and Combustion Delay Using a Constant Volume Combustion Chamber Method."
(Note added 2019)

(b) **Low Temperature Operability.** – A cold flow performance measurement which meets the latest version of ASTM D975, "Standard Specification for Diesel Fuel," tenth percentile minimum ambient air temperature charts and maps by the latest version of either ASTM D2500, "Standard Test Method for Cloud Point of Petroleum Products and Liquid Fuels" or ASTM D4539, "Standard Test Method for Filterability of Diesel Fuels by Low Temperature Flow Test, (LTFT)." The latest version of ASTM D6371, "Standard Test Method for Cold Filter Plugging Point of Diesel and Heating Fuels" may be used when the test results are a maximum of 6 °C below the Cloud Point. Low temperature operability is only applicable October 1 to March 31 of each year.

(c) **Lubricity.** – A maximum wear scar diameter of 460 micrometers as determined by the latest version ASTM D6079, "Standard Test Method for Evaluating Lubricity of Diesel Fuels by the High-Frequency Reciprocating Rig (HFRR)."

NOTE: The latest version of ASTM D6079, "Standard Test Method for Evaluating Lubricity of Diesel Fuels by the High-Frequency Reciprocating Rig (HFRR)" is the referee method; however, the latest version of ASTM D7688, "Standard Test Method for Evaluating Lubricity of Diesel Fuels by the High-Frequency Reciprocating Rig (HFRR) by Visual Observation" can be used. (Note added 2019)

(d) **Corrosion.** – A minimum rating of B+ as determined by the latest version of NACE TM0172, "Determining Corrosive Properties of Cargoes in Petroleum Product Pipelines."

NOTE: The latest version of NACE TM0172 "Determining Corrosive Properties of Cargoes in Petroleum Product Pipelines" is the referee method. The latest version of ASTM D7548 "Standard Test Method for Determination of Accelerated Iron Corrosion in Petroleum Products" can be used. (Added 2019)

(e) **Filter Blocking Tendency (FBT).** – A maximum of 2.2 by the latest version of ASTM D2068, "Standard Test Method for Determining Filter Blocking Tendency", following procedure B. (Added 2019)

(f) **Injector Deposit Control.** – Maximum power loss in keep-clean mode of 2 % by the latest version of Coordinating European Council, CEC F-98-08, "Direct Injection, Common Rail Diesel Engine Nozzle Coking Test." (Added 2019)

2.2.2. Use of Other Diesel Terminology. – For any terms other than premium, super, supreme, or premier included in the diesel fuel product or grade name and/or advertisements and claims displayed on dispensers, pump toppers, pole signs and bollard signs which imply improved performance, the product must have a clearly-defined fuel property with a substantiated functional benefit. Such property must be measurable utilizing industry accepted test methodologies developed by recognized standards organizations such as ASTM, SAE, and CEC to allow verification of the improved performance. (Added 2019)

(Amended 2003 and 2019)

2.5. Fuel Oils. – Shall meet the latest version of ASTM D396, "Standard Specification for Fuel Oils."

2.6. Kerosene (Kerosine). – Shall meet the latest version of ASTM D3699, "Standard Specification for Kerosine."

2.17. Biodiesel Blendstock. – Biodiesel intended for blending with diesel fuel shall meet the latest version of ASTM D6751, "Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels." Any blend stock less than 99 % by volume biodiesel (no more than 1 % by volume diesel fuel). Any blend stock less than 99 % by volume shall not be used as a commercial blend stock for biodiesel blends without the permission of the Director.
(Added 2004) (Amended 2018)

Section 3. Classification and Labeling for Sale.

3.1. General Considerations.

3.1.1. Documentation. – When products regulated by this rule are sold, an invoice, bill of lading, shipping paper, or other documentation must accompany each delivery other than a retail sale. This document must identify the quantity, the name of the product, the particular grade of the product, the applicable automotive fuel rating, and oxygenate type and content (if applicable), the name and address of the seller and buyer, and the date and time of the sale. Documentation must be retained at the retail establishment for a period not less than one year.
(Amended 2008)

3.1.2. Retail Dispenser Labeling. – All retail dispensing devices must identify conspicuously the type of product (exception: gasoline and gasoline-oxygenate blends), the particular grade of the product (exception: No. 2 Diesel), and the applicable automotive fuel rating.
(Amended 2018)

3.1.3. Grade Name. – The sale of any product under any grade name that indicates to the purchaser that it is of a certain automotive fuel rating or ASTM grade shall not be permitted unless the automotive fuel rating or grade indicated in the grade name is consistent with the value and meets the requirements of Section 2, Standard Specifications.

3.1.4. Nozzle Requirements for Automotive Gasoline, Gasoline-Oxygenate Blends, and Diesel Fuel Dispensers. – Each retail dispensing device from which fuel products are sold shall be equipped with a nozzle spout having a diameter that conforms with the latest version of SAE J285, "Dispenser Nozzle Spouts for Liquid Fuel Intended for Use with Spark-Ignition and Compression Ignition Engines."
(Added 2018)
(Amended 2018)

3.3. Diesel Fuel.

3.3.1. Labeling of Grade Required. – Diesel Fuel other than No 2-D shall be identified by grade.
(Amended 2018)

3.3.2. Automotive Fuel Rating. – Diesel fuel containing 6 % to 20 % by volume biodiesel **and/or containing 6% or greater renewable diesel** shall be labeled with its automotive fuel rating in accordance with the FTC "Automotive Fuel Ratings, Certification and Posting Rule," 16 CFR 306.
(Added 2018)

3.3.3. Delivery Documentation for Premium Diesel. – Before or at the time of delivery of premium diesel fuel, the retailer or the wholesale purchaser-consumer shall be provided on an invoice, bill of lading, shipping paper, or other documentation a declaration of all performance properties that qualifies the fuel as premium diesel fuel as required in Section 2.2.1. Premium Diesel Fuel.
(Added 1998) (Amended 1999)
(Amended 1998, 1999, 2008, 2012, and 2018)

3.6. Fuel Oils.

3.6.1. Labeling of Grade Required. – Fuel Oil shall be identified by the grades contained in the latest version of ASTM D396, "Standard Specification for Fuel Oils."
(Amended 2018)

3.6.2. Retail Fuel Oil. – Dispensers shall display the following legend:

"Warning – Not Suitable for Use in Unvented Heaters Requiring No. 1-K Kerosene."

The lettering of this legend shall not be less than 12.7 mm (1/2 in) in height by 1.5 mm (1/16 in) strokes (width of type), block style letters, and the color of lettering shall be in definite contrast to the background color to which it is applied.
(Added 2018)
(Amended 2008 and 2018)

3.15. Biodiesel and Biodiesel Blends <u>containing greater than 20 % by volume biodiesel</u>.

3.15.1. Identification of Product. – Biodiesel Blendstock shall be identified by the term "biodiesel" with the designation "B100" or "B99."
(Amended 2018)

3.15.2. Labeling of Retail Dispensers.

3.15.2.1. Labeling of Grade Required. – Biodiesel shall be identified by the grades No. 1-B S15**<u>,</u>** ~~**or**~~ No. 1-B S500**<u>, No. 2-B S15</u>**, or No. 2-B S500.
(Amended 2018)

3.15.2.2. Automotive Fuel Rating. – **<u>Fuels meeting the above requirements and/or including greater than 5 % renewable diesel</u>** ~~**Biodiesel and biodiesel blends diesel**~~ shall be labeled with its automotive fuel rating in accordance with the FTC Automotive Fuel Ratings, Certification and Posting Rule, 16 CFR 306.
(Amended 2018)

3.15.2.3. Biodiesel Blends. – When biodiesel blends greater than 20 % by volume are offered by sale, each side of the dispenser where fuel can be delivered shall have a label conspicuously placed that states "Consult Vehicle Manufacturer Fuel Recommendations." The lettering of this legend shall not be less than 6 mm (1/4 in) in height by 0.8 mm (1/32 in) stroke; block style letters and the color shall be in definite contrast to the background color to which it is applied.

3.15.3. Documentation for Dispenser Labeling Purposes. – The retailer shall be provided, at the time of delivery of the fuel, a declaration of the volume percent biodiesel on an invoice, bill of lading, shipping paper, or other document. This documentation is for dispenser labeling purposes only; it is the responsibility of any potential blender to determine the amount of biodiesel in the diesel fuel prior to blending.

~~**3.15.4. Exemption. Biodiesel blends that contain less than or equal to 5 % biodiesel by volume are exempted from the requirements of Sections 3.15.1. Identification of Product, 3.15.2. Labeling of Retail Dispensers, and 3.15.3. Documentation for Dispenser Labeling Purposes when it is sold as "diesel fuel" as required in Section 3.3. Diesel Fuel.**~~
(Added 2005) (Amended 2008 and 2018**<u>, and 20XX</u>**)

Section 4. Retail Storage Tanks and Dispenser Filters

4.1. Water in Gasoline-Alcohol Blends, Biodiesel Blends, Ethanol Flex Fuel, Aviation Gasoline, and Aviation Turbine Fuel. – No water phase greater than 6 mm (¼ in) as determined by an appropriate detection paste or other acceptable means, is allowed to accumulate in any tank utilized in the storage of gasoline-alcohol blend, biodiesel, biodiesel blends, ethanol flex fuel, aviation gasoline, and aviation turbine fuel.
(Amended 2008, 2012, and 2014)

4.2. Water in Gasoline, Diesel, Gasoline-Ether, and Other Fuels. – Water shall not exceed 25 mm (1 in) in depth when measured with water indicating paste or other acceptable means in any tank utilized in the storage

of diesel, gasoline, gasoline-ether blends, and kerosene sold at retail except as required in Section 4.1. Water in Gasoline-Alcohol Blends, Biodiesel Blends, Ethanol Flex Fuel, Aviation Gasoline, and Aviation Turbine Fuel. (Amended 2008, 2012, and 2014)

4.3. Dispenser Filters.

4.3.1. Engine Fuel Dispensers.

(a) All gasoline, gasoline-alcohol blends, gasoline-ether blends, ethanol flex fuel, and M85 methanol dispensers shall have a 10 micron or smaller nominal pore-sized filter.

(b) All biodiesel, biodiesel blends, diesel, and kerosene dispensers shall have a 30 micron or smaller nominal pore-sized filter.
(Amended 2014)

Previous Action:
New item in 2023

Original Justification:
The proposed changes provide additional clarity to changes made related to biodiesel approved at the 2022 annual meeting. The proposal also includes important information related to renewable diesel. The submitter recognizes that some may think no changes are needed.

Comments in Favor:

Regulatory:
- Ms. Vanessa Benchea, Vanessa Benchea, FALS Chair: FALS Agree with Mr. Corr and believes these items are fully developed and ready for a vote.

- Mr. Kevin Schnepp, California stated that California does not allow this technology, but he does support this item.

Industry:
- Mr. Chuck Corr, Chuck Corr Consulting representing Iowa Renewable Fuels Association recommended that item to be assigned to FALS, and he will lead a focus group to further develop it.

- Mr. Randy Jennings representing Clean Fuels Alliance American supported Chuck Corr's proposal.

Advisory:
- None

Comments Against:

Regulatory:
- None

Industry:
- None

Advisory:
- None

Neutral Comments:

Regulatory:
- None

Industry:
- None

Advisory:
- None

Item Development:

NCWM 2023 Interim Meeting: The Committee designated Assigned status to this block and assigned the items to the FALS subcommittee.

Regional Associations' Comments:

WWMA 2022 Annual Meeting: Rebecca Richardson, Clean Fuels Alliance America, supports continued development of this item.

Mr. Kevin Schnepp of CDFA DMS proposed several changes:
2.31.1. There are no current ASTM fuel quality standards for biodiesel, diesel blends greater than 20%. This section would imply that there is.
Deletion of 2.31.2.2 I do not see a need for this deletion.
Deletion of 2.31.4. Exemption. I do not see a need for this deletion. This section clarifies that biodiesel, diesel blends less than 5 % as considered diesel fuel.
Addition of 2.40.3 Labeling requirements: The FTC is covered in 2.31.2.2. If that section is deleted, then this requirement would be necessary.
B1: FLR-23.1
1.9. Biodiesel Blend. There are no current ASTM fuel quality standards for biodiesel, diesel blends greater than 20%. This section would imply that there is.
1.27 Fuel Oil. This is consistent with ASTM D396
1.XX Renewable Diesel. This is a weak definition that needs to be worked on.
3.3.2. Automotive Fuel Rating. – This is consistent with 16CRF306
3.15. Biodiesel and Biodiesel Blends containing greater than 20% by volume biodiesel. This is attempting to establish biodiesel blends greater than 20% by volume.
3.15.2.1. Labeling of Grade Required. This Fixes a miss B-2 S15 grade label.
3.15.2.2. Automotive Fuel Rating. This is the FTC requirement.
3.15.2.3. Biodiesel Blends. This section was not modified but I recommend that it be removed as there is no fuel quality standard for greater than 20% biodiesel, diesel blends.
3.15.4. Exemption. – This is consistent with 16CFR306

Based on testimony heard regarding this item not being fully developed, the WWMA L&R Committee recommends this item be assigned Developing status.

SWMA 2022 Annual Meeting: Mr. Randy Jennings (Clean Fuels) commented that he is generally in support of the items submitted and would like to see it go forward in some fashion. Speaking on his own behalf, he would like to suggest an amendment to the definition for diesel fuel to align with the recently updated ASTM D975.

Mr. Joe Sorena (Chevron) recommends the item remain in development and L&R consider alternate wording proposed concerning the concept of redefining the bio diesel blend containing greater than 20 %, as it is inconsistent with D7467 and will contribute to customer confusion.

Dr. Matthew Curran (Florida) commented he spoke with Chuck Corr regarding this item. Conceptually, approves this section. Inconsistencies were described found in the titles of MOS-23.1 and FLR-23.1 and a recommendation for clearer titles was made. He recommends in 2.31.2.1 verbiage is added to the specific EPA and FTC requirements.

Mr. Randy Jennings (Clean Fuels) suggested to form a focus group within FALS with Chuck Corr to lead and move this item forward.

The Committee corrected the title as follows:

B1: MOS-23.1 D Sections 2.~~2~~31. Biodiesel and biodiesel Blends that Contain Greater Than or Equal to 21% by Volume Biodiesel. and 2.40. Diesel Fuel.

The Committee agrees that this item needs more development and recommends this as a Developing Item on the NCWM Agenda.

CWMA 2022 Interim Meeting: Chuck Corr, Iowa RFA and submitter of the items reviewed the changes which he indicated are an extension to what was changed and approved at the 2022 NCWM Annual Meeting. Tamara Paik, Marathon commented she sees small differences between FTC rules, and this proposed item. She believes there should be more consistency between the two. Prentiss Searles, API commented that there are some changes that can be made including consistent reference to CFR in section 3.3.2. (citation references which Mr. Corr considers as editorial in nature). Mike Harrington, Iowa commented he supports the item and indicated Iowa has passed legislation to incentivize B30, so higher blends are coming to the marketplace. Scott Fenwick, Clean Fuels Alliance America commented he is supportive of the concept and supports consistent language and uniformity with citations throughout the Handbook. Mr. Harrington also supports alignment and consistency across various sections of Handbook 130 as well as with FTC. The Committee believes that comments made regarding lack of consistency between FTC rules, EPA rules and what appears in the handbook are valid and should be further developed.

NEWMA 2022 Interim Meeting: During the 2022 NEWMA Interim Meeting Rebecca Richardson, Clean Fuels Alliance America commented that she supports the item moving forward with an Assigned status and recommends L&R refer it to FALS for further development. Jim Willis, New York concurs. The Committee recommends Assigned status for this item.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.com/publication-15 to review these documents.

ITEM BLOCK 2 (B2) GASOLINE

Source:
CC Consulting, LLC

Purpose:
Properly align the text with the EPA regulation citations approved at the 2022 annual meeting. These changes are important to retailers as all of these fuels are now subject to the EPA survey program.

B2: MOS-23.2 V Section 2.20. Gasoline and Gasoline-Oxygenate Blends.

Item Under Consideration:
Amend Handbook 130 Uniform Regulation for the Method of Sale of Commodities as follows:

2.20. Gasoline and Gasoline-Oxygenate Blends.

2.20.1. Method of Retail Sale. – Type of Oxygenate must be Disclosed. – All automotive gasoline or automotive gasoline-oxygenate blends kept, offered, or exposed for sale, or sold at retail containing at least

1.5 mass percent oxygen shall be identified as "with" or "containing" (or similar wording) the predominant oxygenate in the engine fuel. For example, the label may read "contains ethanol" or "with MTBE." The oxygenate contributing the largest mass percent oxygen to the blend shall be considered the predominant oxygenate. Where mixtures of only ethers are present, the retailer may post the predominant oxygenate followed by the phrase "or other ethers" or alternatively post the phrase "contains MTBE or other ethers." In addition, gasoline-methanol blend fuels containing more than 0.15 mass percent oxygen from methanol shall be identified as "with" or "containing" methanol. This information shall be posted on the upper 50 % of the dispenser front panel in a position clear and conspicuous from the driver's position in a type at least 12.7 mm (1/2 in) in height, 1.5 mm (1/16 in) stroke (width of type).
(Amended 1996)

2.20.2. Product Transfer Document (PTD) Requirements. ~~**Documentation for Dispenser Labeling**~~
The retailer shall be provided **information that complies with 40 CFR 1090.1110, "PTD requirements for gasoline, gasoline additives, and gasoline regulated blendstocks"**, at the time of delivery of the fuel, on product transfer documents such as an invoice, bill of lading, shipping paper, or other documentation**. Additional declarations may be required for specific fuels**:

~~**(a) Information that complies with 40 CFR 1090.110 when the fuel contains ethanol.**~~

(a) ~~**(b)**~~ For fuels **containing multiple oxygenates or oxygenates other than ethanol** ~~**that do not contain ethanol, information that complies with 40 CFR 1090.1110 and**~~ a declaration of the predominant oxygenate or combination of oxygenates present in concentrations sufficient to yield an oxygen content of at least **1.0 % by volume** ~~1.5 mass percent~~ in the fuel. Where mixtures of only ethers are present, the fuel supplier may identify either the predominant oxygenate in the fuel (i.e., the oxygenate contributing the largest mass percent oxygen) or alternatively, use the phrase "contains MTBE or other ethers."

(b) ~~**(c) Gasoline**~~ **For fuels** containing more than **0.3 % by volume** ~~0.15mass percent oxygen from~~ methanol **a declaration identifying the fuel** ~~shall be identified~~ as "with" or "containing" methanol.

(Added 1984) (Amended 1985, 1986, 1991, 1996, 2014 and 2022**, and 20XX**)

2.20.3. EPA Labeling Requirements. – Retailers and wholesale purchaser-consumers of gasoline shall comply with the EPA pump labeling requirements for gasoline containing greater than 10 volume percent (v%) up to 15 volume percent (v%) ethanol (E15) under 40 CFR 1090.1510**, "E15 labeling provisions"**. (For additional information, refer to Section 2.30.2. FTC Labeling Requirements.)
(Added 2018) (Amended 2022, 2022, **and 20XX)**

B2: FLR-23.2 V Sections 2.1. Gasoline-Oxygenate Blends, 3.2. and Automotive Gasoline and Automotive Gasoline-Oxygenate Blends (Including Racing Gasoline).

Item under Consideration:
Amend Handbook 130 Uniform Fuels and Automotive Lubricants Regulation as follows:

2.1. Gasoline and Gasoline-Oxygenate Blends.

2.1.2. Gasoline-Ethanol Blends. – When gasoline is blended with denatured fuel ethanol, the denatured fuel ethanol shall meet the latest version of ASTM D4806, "Standard Specification for Denatured Fuel Ethanol for Blending with Gasolines for Use as Automotive Spark-Ignition Engine Fuel," and the blend shall meet the latest version of ASTM D4814, "Standard Specification for Automotive Spark-Ignition Engine Fuel," with the following permissible exceptions:

(a) The maximum vapor pressure shall not exceed the latest version of ASTM D4814, "Standard Specification for Automotive Spark-Ignition Engine Fuel," limits by more than 1.0 psi for blends from June 1 through September 15 as allowed by EPA per 40 CFR 1090.215(b) **Gasoline RVP standards**.

(Amended 2016, 2018, 2019, 2022**, and 20XX**)

3.2. Automotive Gasoline and Automotive Gasoline-Oxygenate Blends (Including Racing Gasoline).

…

3.2.5. Product Transfer Document (PTD) Requirements. ~~Documentation for Dispenser Labeling Purposes~~**.** ~~For automotive gasoline oxygenate blends or racing gasoline, the~~ **The** retailer shall be provided **information that complies with 40 CFR 1090.1110, "PTD requirements for gasoline, gasoline additives, and gasoline regulated blendstocks"**, at the time of delivery of the fuel, on product transfer documents such as an invoice, bill of lading, shipping paper, or other documentation**. Additional declarations may be required for specific fuels**:

~~(a) Information that complies with CFR 1090.1110 when the fuel contains ethanol.~~

~~(Added 2014) (Amended 2022)~~

(a)~~(b)~~ For fuels **containing multiple oxygenates or oxygenates other than ethanol** ~~that do not contain ethanol, information that complies with 40 CFR 1090.1110 and~~ a declaration of the predominant oxygenate or combination of oxygenates present in concentrations sufficient to yield an oxygenate content of at least 1.0 % by volume in the fuel. Where mixtures of only ethers are present, the fuel supplier may identify either the predominant oxygenate in the fuel (i.e., the oxygenate contributing the largest mass percent oxygen) or alternatively, use the phrase "contains MTBE or other ethers."

(Added 2014) (Amended 2022**, and 20XX)**

(b)~~**(c) Gasoline**~~ **For fuels** containing more than 0.3 % by volume methanol **a declaration identifying the fuel** ~~shall be identified~~ as "with" or "containing" methanol.

(Added 2014) (Amended 2018**, and 20XX**)
(Amended 1996, 2014, and 2018)

3.2.6. EPA Labeling Requirements. – Retailers and wholesale purchaser-consumers of gasoline shall comply with the EPA pump labeling requirements for gasoline containing greater than 10 volume percent (v%) up to 15 volume percent (v%) ethanol (E15) under 40 CFR 1090.1510**, "E15 labeling provisions"**. (For additional information, refer to Section 3.8.2. FTC Labeling Requirements.)
(Added 2012) (Amended 2018, 2023, **and 20XX**)
(Amended 2018)

Previous Action:
New item in 2023

Original Justification:
The current text of this section misrepresents the contents of the EPA regulations cited. Some may see this as an unnecessary change. A careful review of the EPA regulation should resolve this concern.

The submitter requested that these be Voting items.

Comments in Favor:

Regulatory:

- Vanessa Benchea, Florida, representing FALS informed the Committee that FALS agreed with Chuck Corr and believes these items are fully developed and ready for a vote.

Industry:

Chuck Corr, Chuck Corr Consulting representing Iowa Renewable fuels association informed the Committee that some of the text does not accurately reflect EPA regulations. He stated the purpose of the proposal was to align and harmonize the current language with the current EPA regulations. Mr. Corr provided suggestions to modify and harmonize the language to the Committee.

Advisory:

- None

Comments Against:

Regulatory:

- None

Industry:

- None

Advisory:

- None

Neutral Comments:

Regulatory:

- None

Industry:

- None

Advisory:

- None

Item Development:

NCWM 2023 Interim Meeting: The Committee amended the item based on the changes proposed by Chuck Corr. With those changes, the Committee assigned Voting status to the Block as it is now fully developed.

Mr. Corr's proposed changes which were accepted by the Committee are as follows:

2.20. Gasoline and Gasoline-Oxygenate Blends.

Under 2.20.2. Product Transfer Document (PTD) Requirements. Mr. Corr suggested adding "PTD requirements for gasoline, gasoline additives, and gasoline regulated blendstocks and to change oxygen content from 1.5 mass percent to 1.0% by volume, and for fuels "containing more than" from 0.15 mass percent to 0.3% by volume.

Under 3.2. Automotive Gasoline and Automotive Gasoline-Oxygenate Blends (Including Racing Gasoline) he suggested striking in 3.2.5. ~~For automotive gasoline, automotive gasoline-oxygenate blends or racing gasoline, the~~

Regional Associations' Comments:

WWMA 2022 Annual Meeting: Amended language was provided by the submitter and is available on the WWMA website.
Mr. Kevin Schnepp, CDFA DMS, suggested they should not use acronyms (PTD) and that he supports development of this item.

Based on testimony heard regarding this item not being fully developed, the WWMA L&R Committee recommends this item be assigned Developing status.

SWMA 2022 Annual Meeting: The L&R chair provided an updated given by the submitter. These proposed changes were not available to the SWMA Conference for review.

The Committee decided this item remains a Developing Item on the NCWM agenda.

CWMA 2022 Interim Meeting: Chuck Corr, Iowa RFA commented this proposal aligns Handbook 130 with the EPA regulation citations approved at the 2022 annual meeting and citations should be included in the title which he believes are editorial in nature. Doug Music and Loren Minnich, Kansas support the item. Mr. Minnich suggested that under section 2.20.2., (a) should be the head section and sections b and c become subsections ii and iii? Readdressed the structure of that section by moving (a) into 2.20.2., and then "b" becomes "a" and "c" becomes "b" as listed below. He supports voting status for both items. Based on discussion during open hearings, the Committee believes this item is fully developed and ready for voting status using the following version:

B2: MOS-23.2 V Section 2.20. Gasoline and Gasoline-Oxygenate Blends.

2.20. Gasoline and Gasoline-Oxygenate Blends.

2.20.1. Method of Retail Sale. – Type of Oxygenate must be Disclosed. – All automotive gasoline or automotive gasoline-oxygenate blends kept, offered, or exposed for sale, or sold at retail containing at least 1.5 mass percent oxygen shall be identified as "with" or "containing" (or similar wording) the predominant oxygenate in the engine fuel. For example, the label may read "contains ethanol" or "with MTBE." The oxygenate contributing the largest mass percent oxygen to the blend shall be considered the predominant oxygenate. Where mixtures of only ethers are present, the retailer may post the predominant oxygenate followed by the phrase "or other ethers" or alternatively post the phrase "Contains MTBE or other ethers." In addition, gasoline-methanol blend fuels containing more than 0.15 mass percent oxygen from methanol shall be identified as "with" or "containing" methanol. This information shall be posted on the upper 50 % of the dispenser front panel in a position clear and conspicuous from the driver's position in a type at least 12.7 mm (1/2 in) in height, 1.5 mm (1/16 in) stroke (width of type).
(Amended 1996)

2.20.2. Product Transfer Document (PTD) Requirements. ~~Documentation for Dispenser Labeling Purposes.~~ – The retailer shall be provided **information that complies with 40 CFR 1090.1110 *PTD requirements for gasoline, gasoline additives, and gasoline regulated blendstocks***, at the time of delivery of the fuel, on product transfer documents such as an invoice, bill of lading, shipping paper, or other documentation**. Additional declarations may be required for specific fuels**:

~~**(a) Information that complies with 40 CFR 1090.1110 when the fuel contains ethanol.**~~

(a) ~~**(b)**~~ For fuels **containing multiple oxygenates or oxygenates other than ethanol** ~~**that do not contain ethanol, information that complies with 40 CFR 1090.1110 and**~~ a declaration of the predominant oxygenate or combination of oxygenates present in concentrations sufficient to yield an oxygen content of at least 1.5 mass percent in the fuel. Where mixtures of only ethers are present, the fuel supplier may identify either the predominant oxygenate in the fuel (i.e., the oxygenate

contributing the largest mass percent oxygen) or alternatively, use the phrase "contains MTBE or other ethers."

(b) ~~**(c) Gasoline**~~ **For fuels** containing more than 0.15 mass percent oxygen from methanol **a declaration identifying the fuel** ~~**shall be identified**~~ as "with" or "containing" methanol.
(Added 1984) (Amended 1985, 1986, 1991, 1996, 2014 and 2022**, and 20XX**)

2.20.3. EPA Labeling Requirements. – Retailers and wholesale purchaser-consumers of gasoline shall comply with the EPA pump labeling requirements for gasoline containing greater than 10 volume percent (v%) up to 15 volume percent (v%) ethanol (E15) under 40 CFR 1090.1510 ***E15 labeling provisions***. (For additional information, refer to Section 2.30.2. FTC Labeling Requirements.)
(Added 2018) (Amended 2022, 2022, **and 20XX)**

B2: FLR-23.2 V Sections 2.1. Gasoline-Oxygenate Blends, 3.2. and Automotive Gasoline and Automotive Gasoline-Oxygenate Blends (Including Racing Gasoline).

2.1. Gasoline and Gasoline-Oxygenate Blends.

2.1.2. Gasoline-Ethanol Blends. – When gasoline is blended with denatured fuel ethanol, the denatured fuel ethanol shall meet the latest version of ASTM D4806, "Standard Specification for Denatured Fuel Ethanol for Blending with Gasolines for Use as Automotive Spark-Ignition Engine Fuel," and the blend

shall meet the latest version of ASTM D4814, "Standard Specification for Automotive Spark-Ignition Engine Fuel," with the following permissible exceptions:

(a) The maximum vapor pressure shall not exceed the latest version of ASTM D4814, "Standard Specification for Automotive Spark-Ignition Engine Fuel," limits by more than 1.0 psi for blends from June 1 through September 15 as allowed by EPA per 40 CFR 1090.215(b) ***Gasoline RVP standards***.
(Amended 2016, 2018, 2019, 2022**, and 20XX**)

3.2. Automotive Gasoline and Automotive Gasoline-Oxygenate Blends (Including Racing Gasoline).

3.2.5. Product Transfer Document (PTD) Requirements. ~~**Documentation for Dispenser Labeling Purposes.**~~ For automotive gasoline, automotive gasoline-oxygenate blends or racing gasoline, the retailer shall be provided **information that complies with 40 CFR 1090.1110** ***PTD requirements for gasoline, gasoline additives, and gasoline regulated blendstocks***, at the time of delivery of the fuel, on product transfer documents such as an invoice, bill of lading, shipping paper, or other documentation**.** **Additional declarations may be required for specific fuels**:

~~**(a) Information that complies with 40 CFR 1090.1110 when the fuel contains ethanol. (Added 2014) (Amended 2022)**~~

(a) ~~**(b)**~~ For fuels **containing multiple oxygenates or oxygenates other than ethanol** ~~**that do not contain ethanol**~~, ~~**information that complies with 40 CFR 1090.1110 and**~~ a declaration of the predominant oxygenate or combination of oxygenates present in concentrations sufficient to yield an oxygenate content of at least 1.0 % by volume in the fuel. Where mixtures of only ethers are present, the fuel supplier may identify either the predominant oxygenate in the fuel (i.e., the oxygenate contributing the largest mass percent oxygen) or alternatively, use the phrase "contains MTBE or other ethers."
(Added 2014) (Amended 2022**, and 20XX)**

(b) ~~**(c) Gasoline**~~ **For fuels** containing more than 0.3 % by volume methanol **a declaration identifying the fuel** ~~**shall be identified**~~ as "with" or "containing" methanol.

(Added 2014) (Amended 2018**, and 20XX**)
(Amended 1996, 2014, and 2018)

3.2.6. EPA Labeling Requirements. – Retailers and wholesale purchaser-consumers of gasoline shall comply with the EPA pump labeling requirements for gasoline containing greater than 10 volume percent (v%) up to 15 volume percent (v%) ethanol (E15) under 40 CFR 1090.1510 ***E15 labeling provisions***. (For additional information, refer to Section 3.8.2. FTC Labeling Requirements.)
(Added 2012) (Amended 2018, 2023, **and 20XX**)
(Amended 2018)

NEWMA 2022 Interim Meeting: During the 2022 NEWMA Interim Meeting Lisa Warfield, NIST Technical Advisor commented that she believes the item should move forward with Informational status. Jim Willis, New York commented that he believes the item should be given Developmental status. The Committee recommends Developing status for this item.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.com/publication-15 to review these documents.

ITEM BLOCK 3 (B3) CANNABIS

B3: PAL-22.1 W Section 2. Definitions 2.XX *Cannabis* and *Cannabis*-Containing Products.

Source:
NCWM Cannabis Task Group

Purpose:
Establish a clear definition of *Cannabis* and *Cannabis*-containing products for use in Handbook 130 Uniform Packaging and Labeling Requirements.

Item Under Consideration:

Amend Handbook 130, Uniform Packaging and Labeling Regulation, as follows:

2.XX. *Cannabis* and *Cannabis*-Containing Products – Cannabis is a genus of flowering plants in the family Cannabaceae, of which *Cannabis sativa, indica, ruderalis* are species, and any hybridization thereof. This definition includes products that contain 0.3 percent or less of Total Delta-9 Tetrahydrocannabinol (THC) (also known as Hemp) and products that contain more than 0.3 percent of Total Delta-9 THC (also known as cannabis, marijuana or marihuana).

(Added 20XX)

Previous Action:

2022: Voting – Returned to Committee.

Original Justification:
Since *Cannabis* and *Cannabis*-containing products were first legalized by some states, the industry has undergone an unprecedented expansion. Even though these products haven't received Federal approval at this time, more and more states have supported *Cannabis* and *Cannabis*-containing products for medicinal or adult-use under their own laws. This has resulted in boutique markets developing across the country with restrictive state boundaries for lack of clarity and uniformity in commercialization of these products.

Cannabis and *Cannabis*-containing products are unique in many aspects; they have a niche as medicine, have resulted in the development of adult use markets, and have an incredible array of different manufacturing and industrial applications. Some of these products contain controlled substances which presents a special concern for the safety and welfare of consumers if misused or mishandled. Further, they are subject to strict regulations by multiple government agencies. *Cannabis* and *Cannabis*-containing products and applications range from non-food to food products for human and animal consumption through inhalation, ingestion, and/or topical or dermal application. They can be used as ingredients in other commodities, changing in most cases the product identity to *Cannabis* and *Cannabis*-containing products. Some *Cannabis* and *Cannabis*-containing products are very susceptible to environmental conditions easily losing or gaining moisture with consequences impacting net quantity, degradation of active cannabinoids, and/or microbial proliferation depending on the situation. These are just some of the reasons there are many concerns and uncertainty surrounding the method of sale and commercialization of *Cannabis* and *Cannabis*-containing products.

Many states have already, or are in the planning stages of, codified packaging and labeling regulations that may differ from those proposed here. They may change yet again once the federal government establishes regulations for *Cannabis* and *Cannabis*-containing products. However, unifying the packaging and labeling requirements nationally through this proposal will eliminate the boutique markets currently developing. Much of industry has expressed the desire for uniformity and this will align with their needs in this regard.

The submitter requested that this be a Voting Item in 2022.

Note: The Committee heard testimony on each individual item in Block 3 (B3 (Cannabis). The comments heard are reported for each item, but the Committee will keep items PAL-22.1 PAL 22.2 and MOS-22.2 together as a block. Item NET-22.1 is removed from the block and will be considered separately.

Item Development:

NCWM 2022 Interim Meeting: The Committee assigned Voting status for this item.
The Committee heard unanimous support for this item from Regulators and Industry who shared the need for it.

NCWM 2022 Annual Meeting: The Committee heard support for this item from the Co-Chair of the Cannabis Task Group and Matt Curran, Florida.

The Committee also received requests for changes from Mr. Joe Moreo, Trinity County, California. He requested and the Committee amend the proposal and include additional species of *C*annabis be included. This change was made by the Committee and they added "*indica, ruderalis* species and any "hybridization thereof" to the definition of Cannabis and *Cannabis*-Containing Products. The Committee also removed the capitalization of the words cannabis, marijuana and marihuana. The Committee spelled out the acronym for "THC".

Regional Association's Comments:
CWMA 2022 Annual Meeting: Lisa Warfield, NIST Technical Advisor recommends this as a Developing item or Assigned to the Cannabis Task Group to obtain additional information that OWM has recommended in the analysis. She read the following statement from NIST OWM.

"Cannabis" Statement from NIST OWM:
As a non-regulatory metrology institute, NIST defers to federal agencies with regulatory authority under the Controlled Substances Act (CSA) for the scheduling of drugs or other substances. NIST does not have a policy role related to the production, sale, distribution, or use of cannabis (including hemp and marijuana).

While the 2018 Farm Bill removed hemp from the list of controlled substances under Schedule 1 of the CSA, marijuana remains on that list. NIST must respect that distinction even as it exercises its statutory authority to develop and disseminate national weights and measures standards for the production, distribution, and sale of products in the commercial marketplace.

NIST remains committed to providing technical assistance to the weights and measures community. OWM has provided key technical points for the community to consider in its deliberations of cannabis-related proposals, and OWM would be happy to provide any necessary clarification. OWM comments are intended to encourage technically sound application of legal metrology laws, regulations, and practices to the measurement and sale of these products.

NEWMA 2022 Annual Meeting: John McGuire, Chairman NEWMA L&R Committee, NJ – Noted that the NCWM Cannabis Work Group, NCWM L&R Committee and the NEWMA L&R Committee recommends removing this block and making them individual items to ensure each item is fully considered.

B3: PAL-22.2 V Section 10. Requirements, 10.XX *Cannabis* and *Cannabis*-Containing Products.

Source:
NCWM *Cannabis* Task Group

Purpose:
Establish uniform packaging and labeling requirements for *Cannabis* and *Cannabis*-containing products.

Item Under Consideration:

Amend Handbook 130, Uniform Packaging and Labeling Regulation, as follows:

10.XX. *Cannabis* and *Cannabis-Co*ntaining Products See Section 10. XX *Note*

10.XX.1. Definition – *Cannabis* is a genus of flowering plants in the family Cannabaceae, of which *Cannabis sativa, indica, ruderalis* are species., and any hybridization thereof. This definition includes products that contain 0.3 percent or less of Total Delta-9 Tetrahydrocannabinol (THC) (also known as Hemp) and products that contain more than 0.3 percent of Total Delta-9 THC (also known as cannabis, marijuana or marihuana).

10.XX.2. Labeling – Any *Cannabis* or *Cannabis*-containing products intended for human or animal consumption or application, shall bear on the outside of the package the following:

(a) On the principal display panel

1. **The statement "Contains *Cannabis.*" The word "*Cannabis*" shall be capitalized and italicized, and.**
2. **The statement "Contains 0.3% or less Total Delta-9 THC" or "Contains more than 0.3 % Total Delta- 9 THC": and**

(b) On back or side panel

(1) a declaration of the labeled cannabinoid per serving or application; and

(2) the cannabinoid quantity declaration shall be in milligrams.

***Section 10. XX NOTE*: The use of italicized text in the references to *"Cannabis"* is only to denote its proper taxonomy.**

Effective date of enforcement January 1, 2025.(Added 20XX)

~~**10.XX. *Cannabis* and *Cannabis* Containing Products – Any *Cannabis* or *Cannabis* containing products intended for human or animal consumption or application, shall bear on the outside of the package the following:**~~

~~**(a) On the principal display panel**~~

~~**(1) the statement "Contains *Cannabis*". The word "*Cannabis*" shall be capitalized and italicized; and**~~

~~**(2) the statement "Contains 0.3% or less Total Delta-9 THC" or "Contains more than 0.3% Total Delta-9 THC"; and**~~

~~**(b) On back or side panel**~~

~~**(1) a declaration of the labeled cannabinoid per serving or application; and**~~

~~**(2) the quantity declaration shall be in milligrams.**~~

Previous Action:
2022: Voting – Returned to Committee

Original Justification:
Since *Cannabis* and *Cannabis*-containing products were first legalized by some states, the industry has undergone an unprecedented expansion. Even though these products haven't received Federal approval at this time, more and more states have supported *Cannabis* and *Cannabis*-containing products for medicinal or adult-use under their own laws. This has resulted in boutique markets developing across the country with restrictive state boundaries for lack of clarity and uniformity in commercialization of these products.

Cannabis and *Cannabis*-containing products are unique in many aspects; they have a niche as medicine, have resulted in the development of adult use markets, and have an incredible array of different manufacturing and industrial applications. Some of these products contain controlled substances which presents a special concern for the safety and welfare of consumers if misused or mishandled. Further, they are subject to strict regulations by multiple government agencies. *Cannabis* and *Cannabis*-containing products and applications range from non-food to food products for human and animal consumption through inhalation, ingestion, and/or topical or dermal application.

They can be used as ingredients in other commodities, changing in most cases the product identity to *Cannabis* and *Cannabis*-containing products. Some *Cannabis* and *Cannabis*-containing products are very susceptible to environmental conditions easily losing or gaining moisture with consequences impacting net quantity, degradation of active cannabinoids, and/or microbial proliferation depending on the situation. These are just some of the reasons there are many concerns and uncertainty surrounding the method of sale and commercialization of *Cannabis* and *Cannabis*-containing products.

Since *Cannabis* is being introduced as an ingredient into many commodities, having a statement on the principal display panel will allow consumers to be informed as to its contents. The amount and type of cannabinoids are a deciding factor to consumers when purchasing *Cannabis* and *Cannabis*-containing products. This would also provide regulators with the information necessary to ensure consumers are not being defrauded as these products carry a hefty price tag.

A declaration of marketed cannabinoids and their respective concentration will allow consumers to compare like products for value comparison. Both requirements will also act as a safety mechanism to alert consumers of the contents and aid them in selecting the desired product.

Many states have already, or are in the planning stages of, codified packaging and labeling regulations that may differ from those proposed here. They may change yet again once the federal government establishes regulations for *Cannabis* and *Cannabis*-containing products. However, unifying the packaging and labeling requirements nationally through this proposal will eliminate the boutique markets currently developing. Much of industry has expressed the desire for uniformity and this will align with their needs in this regard.

The submitter requested that this be a Voting Item in 2022.

Item Development:

NCWM 2022 Interim Meeting. The Committee assigned Voting status for this item.

The Committee heard support for this item from several Regulators and did not hear opposition to it. The Committee made a couple changes to the item in section **10. XX *Cannabis* and *Cannabis*-Containing Products** and believes it is fully developed and ready for a vote.

NCWM 2022 Annual Meeting: The Committee removed the italicization of letter "C" in word "Containing" and made an editorial change to the language specifying the level of Total Delta-9 THC to harmonize with other sections.

The Committee changed the roman numerals to numerical and separated out paragraph (b) into 1 and 2.

The Committee considered the testimony from Dave Sefcik, NIST, OWM and the written NIST, OWM analysis provided to the Committee and published on the NCWM website.

Regional Association's Comments:

B3: MOS-22.2 V Section 1. XX. *Cannabis* and *Cannabis*-Containing Products and 2. XX. *Cannabis* and *Cannabis*-Containing Products.

Source:
NCWM Cannabis Task Group

Purpose:
Create a new section in the Uniform Regulation for the Method of Sale of Commodities in Handbook 130 for *Cannabis* and *Cannabis*-Containing Products. Given the nature of these products, they need to be included in both, the Food and Non-Food sections of this regulation.

Item Under Consideration:

Amend Handbook 130, Uniform Regulation for the Method of Sale of Commodities, as follows:

Section 1. Food Products.

1.XX *Cannabis* and *Cannabis*-Containing Products – *Cannabis* is a genus of flowering plants in the family Cannabaceae, of which *Cannabis sativa*, *indica*, *ruderalis* are species, and any hybridization thereof. This definition includes products that contain 0.3 percent or less of Total Delta-9 Tetrahydrocannabinol (THC) (also known as Hemp) and products that contain more than 0.3 percent of Total Delta-9 THC (also known as cannabis, marijuana or marihuana).

1.XX.X. Unit

(a) **Volume – Products offered for sale in liquid form shall be sold by volume.**
(b) **Weight- Products offered for sale in non-liquid form shall be sold by weight. These products may also have a supplemental declaration of count or measure.**

1.XX.X.– Sale from Bulk

(a) When sold from bulk, all sales shall be based on net weight or net volume.

(b) When liquids are offered for sale from bulk, the reference temperature for measurement shall be 20 °C (68 °F). Products shall be delivered at a temperature within ± 2 °C (5 °F). Artificially heating liquids to temperatures higher than the specified limits is prohibited.

1.XX.X. Water Activity-When unprocessed *Cannabis*, is kept, offered, or exposed for sale, sold, bartered, or exchanged, or ownership transfers, the water activity shall be 0.60 (± 0.05) in accordance with latest version of ASTM D 8197, *Standard Specification for Maintaining Acceptable Water Activity (aw) Range (0.55 to 0.65) for Dry Cannabis Flower Intended for Human/Animal Use*.

The procedure for determining the water activity in Cannabis flower can be found in the latest version of ASTM D 8196 *Standard Practice for Determination of Water Activity (a_w) in Cannabis Flower.*

And

Section 2. Non-Food Products.

2.XX. *Cannabis* and *Cannabis*-Containing Products – *Cannabis* is a genus of flowering plants in the family Cannabaceae, of which *Cannabis sativa, indica, ruderalis* are species, and any hybridization thereof. This definition includes products that contain 0.3 percent or less of Total Delta-9 Tetrahydrocannabinol (THC) (also known as Hemp) and products that contain more than 0.3 percent of Total Delta-9 THC (also known as cannabis, marijuana or marihuana).

2.XX.X. Unit

(a) **Volume – Products offered for sale in liquid form shall be sold by volume.**

(b) **Weight- Products offered for sale in non-liquid form shall be sold by weight. These products may also have a supplemental declaration of count or measure.**

2.XX.X.– Sale from Bulk

(a) When sold from bulk, all sales shall be based on net weight or net volume.

(b) When liquids are offered for sale from bulk, the reference temperature for measurement shall be 20 °C (68 °F). Products shall be delivered at a temperature within ± 2 °C (5 °F). Artificially heating liquids to temperatures higher than the specified limits is prohibited.

2.XX.X. Water Activity-When unprocessed *Cannabis*, is kept, offered, or exposed for sale, sold, bartered, or exchanged, or ownership transfers, the water activity shall be 0.60 (± 0.05) in accordance with latest

version of ASTM D 8197, *Standard Specification for Maintaining Acceptable Water Activity (aw) Range (0.55 to 0.65) for Dry Cannabis Flower Intended for Human/Animal Use*.

The procedure for determining the water activity in Cannabis flower can be found in the latest version of ASTM D 8196 *Standard Practice for Determination of Water Activity (a_w) in Cannabis Flower.*

Previous Action:
2022: Voting - Returned to Committee.

Original Justification: This proposal was drafted by the Method of Sale Focus Group within the NCWM Cannabis Task Group.

The ASTM International D37 Cannabis Committee has more than 900 members, the vast majority of which are industry stakeholders. The first two D37 standards passed through the consensus process related to water activity, one of which used all available data to establish an ideal range of 0.55 to 0.65 for *Cannabis* plant material. The proposal to the Method of Sale herein includes a water activity of 0.60 +/- 0.05. While industry has indicated they will reiterate their support for this water activity standard through the NCWM process it is important for the Committee and Membership to be made aware that approximately 900 industry members have already weighed in on and given their consensus support to this standard. Since *Cannabis* and *Cannabis*-Containing products were first legalized by some states, the industry has undergone an unprecedented expansion. Even though these products haven't received Federal approval at this time, more and more states have supported *Cannabis* and *Cannabis*-Containing products for medicinal or recreational use under their own laws. This has resulted in boutique markets developing across the country with restrictive state boundaries for lack of clarity and uniformity in commercialization of these products.

Cannabis and *Cannabis*-Containing products are unique in many aspects; they have a niche as medicine, have resulted in the development of adult use markets, and have an incredible array of different manufacturing and industrial applications. Some of these products contain controlled substances which presents a special concern for the safety and welfare of consumers if misused or mishandled.

Further, they are subject to strict regulations by multiple government agencies. *Cannabis* and *Cannabis*-Containing products and applications range from non-food to food products for human and animal consumption through inhalation, ingestion, and/or topical or dermal application.

They can be used as ingredients in other commodities, changing in most cases the product identity to *Cannabis* and C*annabis*-Containing products. Some *Cannabis* and *Cannabis*-Containing products are very susceptible to environmental conditions easily losing or gaining moisture with consequences impacting net quantity, degradation of active cannabinoids, and/or microbial proliferation depending on the situation.

These are just some of the reasons there are many concerns and uncertainty surrounding the method of sale and commercialization of *Cannabis* and *Cannabis*-Containing products.

As a new and rapidly developing industry and given the level of uncertainty and lack of uniformity, *Cannabis* and *Cannabis*-Containing products need a clear and consistent method of sale to provide equity and fairness in the marketplace.

Uniformity throughout the method of sale of *Cannabis* and *Cannabis*-Containing products would harmonize regulations across states so these products are not limited by their borders. Further, this would ensure clear and fair competition in the marketplace and provide accurate quantity information for consumers to make informed price and quantity comparisons.

Cannabis has proven to be susceptible to environmental changes, a source of controlled substances, of a high dollar value, and a safety risk for consumers if misused or mishandled. As a result, *Cannabis* and *Cannabis* products require a water activity standard that shall be maintained throughout the entire distribution process from extraction to retail sale.

Water activity is a measure of "free" water available in the plant material to fuel microorganism growth. It is reported on a scale from 0 to 1. The optimal water activity range for *Cannabis* has been determined through scientific studies to be 0.55-0.65 and correlates to an environment that is least conducive to the growth of destructive and harmful microorganisms (e.g., molds). If *Cannabis* was to be sold with as little water content as possible the product would not remain viable (i.e., loss or destruction of desired components, such as cannabinoids and terpenes) for as long and could subject the public to increased health and safety concerns. It would not be feasible to have a moisture allowance close to zero but a product viability and safety moisture content within the optimal water activity range.

A water activity between 0.55 and 0.65 in *Cannabis* typically correlates to a moisture content of 10-12%. (See attached Colorado MED report showing 14% of all flowers failed initial mold/yeast testing before being allowed on the market).

On the *Cannabis* cultivation side, recall that *Cannabis* flower is one of the most valuable materials in the US after precious metals or gems. Between the highest safe water activity (0.65) and the lowest possible water activity (0.04), *Cannabis* flower can fluctuate about 5% in weight.

This means that a jurisdiction not having the ability to test water activity through the supply chain stays exposed to bad actors who could manipulate water activity at key points to divert about 5% of any harvest in a way that will completely evade every track and trace system. In a world where oversight agencies are concerned about tracking every gram, leaving thousands of pounds at risk of diversion and the related tax loss to the much more lucrative black market is a hole that needs to be plugged.

In the retail *Cannabis* trade, Insufficient attention and guidance is given to moisture migration in or out of some *Cannabis* packaging and as a result, the contents of some *Cannabis* flower packaging have been found to be underweight, resulting in the patient/consumer paying for weight that they are not receiving. For instance, underweight complaints are the #1 consumer complaint in Oregon. For the fairness and safety of *Cannabis* consumers, a 3% +/- weight variance Containing on enforcement of acceptable moisture range needs to be established. As has been learned in other industries in which W&M has jurisdiction, if something can get out of a retail package during distribution, it can also get in. The ability to test packaged *Cannabis*-Containing products at retail for water activity becomes a safety and equity concern.

Solution: ASTM D8197-20 (1) establishes the ideal moisture range for *Cannabis* flower in terms of water activity of 0.60 +/- 0.05. (Exclusive free access to that and another water activity standard can be accessed at https://www.astm.org/NCWM.htm" https://www.astm.org/NCWM.htm and free access to an ASTM water activity eLearning course can be accessed by reaching out to Charlie@CPRSquaredinc.com). This correlates to a moisture content of 10-12 %, which narrows the range of weight variation that must be addressed in dealing with moisture loss.

More than 800 ASTM D37 members concluded that the ideal range for cannabis and hemp flower is 0.55-0.65 (the equivalent to 55-65% Relative Humidity). This was affirmed by the US Pharmacopeia's Expert Cannabis Panel in their Cannabis Paper (2) to mitigate mold growth and maintain the quality attributes.

Consumers/patients buying *Cannabis* products are looking for a desired effect. Those effects are in part determined by the presence of terpenes, which have different scents and provide various therapeutic effects. The presence of these terpenes is diminished as the plant dries and the effects the patient/consumer is expecting are also diminished from what is shown on the label (terpene testing).

The US Pharmacopeia has determined the same water activity of 0.60 +/- 0.05 to be ideal for maintaining these quality attributes (e.g., cannabinoid and terpene content) of *Cannabis* flower (attached).

The submitter mentioned the following possible opposing arguments:

- Patients and Consumers don't want to buy water when purchasing *Cannabis*. When it comes to *Cannabis*, they want to buy the right amount of water. The right amount of water (or moisture) helps safeguard the quality and integrity of the *Cannabis* components consumers are purchasing. These active components would degrade in overdried plant material. It could also be argued that by providing a constant moisture

content through establishment of a water activity standard for the proper sale of unprocessed *Cannabis* there is a measure of ensuring proper quantity during purchase.

- W&M doesn't regulate quality. To the extent establishing an acceptable water activity range is monitoring quality, this is a positive by-product of monitoring equitable transactions, promoting health and safety and preventing diversion. Oversight of motor fuels is analogous in the sense that the attributes of motor fuel are a function of quality and samples are sent to a lab for testing these attributes.
- Equipment cost. The additional cost of water activity meter(s) should not be prohibitive. It could be easily offset by the revenue that would be saved by preventing over drying and diversion and/or by fees collected. This could be accomplished by random testing of *Cannabis* flower throughout the manufacturing and distributions processes. It should also be noted that setting a water activity standard in the MOS does not establish testing requirements nor frequency of testing requirements.
- Illegal activity. Not every state has legalized the sale and distribution of *Cannabis*, whether it contains more or less than 0.3 % THC. However, there are many states (and federal agencies) that have legalized the sale of *Cannabis* in some form or fashion or another. There are strong indication that federal and other state agencies are working to establish requirements for the sale of *Cannabis* and *Cannabis*-products.
- Some have expressed concern over this water activity applying to *Cannabis*-containing products, which resulted from confusion. The water activity proposed herein would not apply to *Cannabis*-containing products, rather it would only apply to *Cannabis* plant material. Traditional water activity levels applied to food products would not be altered or affected by this proposal. The submitter requested that this be a Voting Item in 2022.

Comments in Favor:

Regulatory:

- Mr. Ed Williams, Ventura County California, supported the item but with the caveat relating to the expression of THC content.

- Dr. Matt Curran, Florida disagreed with David Sefcik, NIST OWM about the status of this item. He believed it should be a voting item. He added that voting attendance was low in Tacoma WA and the majority in both houses supported the item, but there were not enough votes to meet the 27 votes threshold.

- Mr. Jim Cassidy, Massachusetts, a member of the Cannabis Task Group, spoke on David Sefcik's comments. He stated that we have dealt with moisture loss and this product is different and we need to evolve (same old same old) or things will pass us by. We need to grow and change. HB133 needs to evolve, and I support everything that is written as voting.

- Mr. Kurt Floren, County of Los Angeles, rose to support making this item voting.

  Mr. Floren also addressed the comments made by NIST OWM. He stated that he respectfully disagreed with Mr. Sefcik. This should be a voting item, as it did not advance at the 2022 Annual Meeting only because of low attendance. There were only two negative votes from the House of Representatives and House of Delegates. The item doesn't need changes, should be able to pass and is desperately needed.

  The only organization opposed to it is NIST. This item is needed, and we need to evolve or everything will pass us by. We need to be able to grow and change.

- Mr. Paul Floyd, Louisiana, and member of the cannabis Task Group spoke in support of this as a voting item.

- Mr. Joe Moreo, Trinity County, California: Cannabis was not a unique product until the federal government got involved. It cannot be tested federally because it is against the law. Support Charlie and Cannabis task

- Mr. Austin Sheppard, San Diego County expressed support for items for the reasons already discussed.

Industry:

- Mr. Charlie Rutherford, *Cannabis* Task Group Chair, informed the Committee that all four Regional Associations supported this item.

  The 2022 NCWM annual meeting vote on this block of items was depressingly close to getting enough votes, some of the politics have changed.

  All four regions support as voting item.

Advisory:

- None

Comments Against:

Regulatory:

- None

Industry:

- None

Advisory:

- None

Neutral Comments:

Regulatory:

- Mr. Matt Curran, Florida stated that water activity that is not just quality it has a quantity aspect, and it should be recognized for a unique product like cannabis.

- Mr. Vince Wolpert, Arizona responded to Mr. Sefcik, NIST OWM stating if Mr. Sefcik believes Cannabis is not a unique commodity, maybe they will help with a moisture loss procedure. Our view is Cannabis is a very unique product. There is a breakpoint that defines where products can be sold. For example, moisture content is monitored and regulated in grain.

  Mr. Wolpert asked if NIST will participate in a moisture loss study? He mentioned that here is a break point between where gasoline can be sold at a gas station vs. dispenser and that principle is applicable for Cannabis. Mr. Wolpert further stated that there is a need for a definition for Cannabis and that other weight water content is important. He referred to grain being checked with a grain moisture meter to check moisture content and its similar for Cannabis - water activity is checked.

Industry:

- Mr. Charlie Rutherford, Cannabis Task Group Chair, responded to Mr. Sefcik's comment regarding water activity. He stated that without the definition of water activity and the ability to enforce it equity in the marketplace will not be achieved.

Advisory:

- NIST OWM recommended that the Block be designated as Assigned and assigned to the Cannabis Task Group. NIST OWM provided recommended changes to the Block in their OWM Analysis. Mr. David Sefcik, NIST OWM provided the following information to the Committee on the Cannabis items. PALS 22.2 definitions - OWM does not believe having a definition is needed. The reason is because Cannabis already has a known standard of identity. It is not necessary to add a definition to the handbook. Section

2 "Definitions" in the UPLR are used to define terms. The definition section is not intended to define Commodities. The Committee may not want to set a precedent of defining Commodities especially for a commodity with a known standard of identity.

PAL 22.2 labeling – OWM had previously noted our concerns with "Cannabis" being italicized and capitalized. We ask that this be revisited as to where this requirement is coming from, and the justification be better understood. We are not aware of any state that has this requirement. We ask the committee to also consider an effective date. It is highly unusual to have a Labeling Regulation implemented with no implementation grace period.

This regulation if passed, affects all type of commodities that contain cannabis, for example such items as lip balms and lotions. These and other type cannabis products need adequate time to be in compliance. FDA typically allows a 3-year grace period for industry to be in compliance when a labeling change is required,

MOS 22.2 method of sale – do not believe a method of sale is require as a method of sale already exists; cannabis is not a unique commodity. Mr. Sefcik also noted that water activity testing would not be conducted by Weights and Measures agencies, but by other agencies as Weights and Measures does not enforce quality (other than fuels).

Item Development:

NCWM 2021 Interim Meeting: The Committee assigned Voting status for this item.

The Committee heard support for this item. The Committee also heard the need to define "Water Activity" which they included by citing the ASTM definition for Water Activity. The Committee sought and received copyright permission from ASTM to use their definition in the printed NIST Handbook materials.

2022 Annual Meeting: The Committee harmonized 1.XX and 2.XX with PAL 22.1 Definition, eliminated the definition for Water Activity, and removed examples from 1.XX.X and 2.XX.X Units. The Committee also changed the word "quantity" to "volume" in 1.XX.X and 2.XX.X Sale from Bulk subsection (a). In 2.XX.X Water Activity was changed from 0.6 to 0.60.

The Committee added a reference for the ASTM Water Activity test method.

The Committee considered the written NIST, OWM analysis provided to the Committee and published on the NCWM website, and Mr. Sefcik's summary of the NIST, OWM analysis during the open hearing.

NCWM 2023 Interim Meeting: The Committee assigned Withdrawn status to Block3 item PAL-22-1 Section 2. Definitions Cannabis and *Cannabis*-Containing Products but incorporated the item into Section 10 of PAL 22.2. and will be a Voting item as part of Block 3.

The Committee, after making a couple of changes assigned Voting status to the Block items as they are considered fully developed.

Those changes were: Adding to MOS-22.2 a "Section 1. Food Items." The Committee also modified the Section 10. note as follows: "The use of italicized text in the references to *"Cannabis"* is only to denote its proper taxonomy.*"*

Finally, the Committee added: "Effective date of enforcement January 1, 2025. (Added 20XX)"

The Committee recommends the BOD, as a next step, assign to the Cannabis Task Group the development of safety, handling, testing procedures, transportation and other protocols for inspecting and handling Cannabis products.

This recommendation does not impact this item as a Voting item.

Regional Associations' Comments:

WWMA 2022 Annual Meeting: Mr. Charles Rutherford, Chair NCWM Cannabis Task Group, wanted to remind jurisdictions that did not vote on this item that it is important both to jurisdictions that need Cannabis regulations, and the item also includes Hemp regulations that are needed by many states.
Mr. Kurt Floren, LA County, supports this item moving forward with an editorial change:

PAL-22.2; 10.XX (b)
(2) the cannabinoid quantity declaration shall be in milligrams

Mr. Kevin Schnepp, CDFA DMS, supported the item moving forward as a voting item with Kurt's edit.

Based on the testimony heard, the WWMA L&R Committee recommends this item for Voting status.

SWMA 2022 Annual Meeting: Charlie Rutherford (NCWM Cannabis Task Group) and Dr. Matthew Curran (Florida) spoke in support of this as a voting item.

Lisa Warfield (NIST OWM) spoke on the topic of packaging and labeling for cannabis and the format to be used in handbooks, regarding italicization in the PDP on the product labeling and whether it's use has been clearly defined. She believes cannabis has a known standard of identity and does not need to be added to the handbooks. She does not believe that a method of sale is needed for this commodity.

Dr. Matthew Curran (Florida) expressed concern over the use of the italicization and terminology, stating that potential legal and taxonomic concerns which could result from not having a required formatting of the labeling. He states the committee needs to decide. He also thinks that method of sale and moisture content should be accounted for.

This is a carryover item that did not pass at the last National meeting and was returned to the Committee. No changes have been made since the last vote.

The Committee wants the National L&R Committee to consider if an implementation date for recommended labeling changes is needed.

The Committee recommends this as a Voting item on the NCWM agenda.

CWMA 2022 Interim Meeting: Doug Musick, Kansas asked if on line 31 on page 122, the third time the word "cannabis" is used it should be italicized. Craig Van Buren, Michigan agreed the word cannabis should be italicized and is editorial in nature. He further commented the item has not changed since the previous vote, it is fully developed, and ready for voting status. Doug Rathbun, Illinois supports the item moving forward with voting status. Charlie Rutherford, ASTM/ NCWM Cannabis Task Group commented he agrees with the editorial changes for cannabis being italicized. He hopes whether states have legalized cannabis for medicinal or recreational use they will make an effort to be informed and participate in voting for these items, as they also include hemp. Also for states that have not yet legalized cannabis, this model language would be established prior to future legalization. Based on testimony and previous vetting and development of this item, the Committee concurs this item is fully developed and is ready for voting status.

NEWMA 2022 Interim Meeting: At the 2022 NEWMA Interim Meeting Chair Sakin commented on the history of these items and believes they are fully developed and ready for voting status. Charlie Rutherford, *Cannabis* Task Group co-chair and ASTM expressed his appreciation for support of these items and cautioned against delaying passage of these items because they also refer to hemp. He further commented that several states continue to move forward adopting medicinal and recreational uses of cannabis. Lou Sakin, Holliston, MA commented that he has several growers in his area and believes these items needs to move forward as voting items. Lisa Warfield, NIST Technical Advisor provided separate comments on each of the items in the block as follows:

B3: PAL-22.1. – Section 2. Definitions, 2. XX Cannabis and Cannabis-Containing Products

Section 2 Definitions defines terms as they are used in the UPLR; these are not intended to define commodities in the marketplace. (ex. of definitions: package, non-consumer, consumer, person, principal display). The UPLR does not define products or commodities. This item could set a precedent for defining commodities. "Cannabis" has a known standard of identity; it is not necessary to add a definition to the handbook.

B3: PAL-22.2. – Section 10. Requirements, 10. XX Cannabis and Cannabis-Containing Products

The FDA has already established criteria for packaged products states product identity locations on package (PDP), net contents, and declaration of responsibility. Determining font style for packaged products would set an unintended precedent for NCWM. OWM has previously noted concerns with "Cannabis" being italicized. It is written in the cannabis regulation in Italics format. As this item is written, it reflects a requirement that the term "Cannabis" appear in italics style on the principal display panel. If adopted, OWM recommends the Committee add the statement to (a)(2); "the term Cannabis shall appear in capitalization and italics style on the principal display panel." If it is not a requirement the capitalization and italics format must be removed to avoid confusion in labeling requirements.

If this change is adopted manufacturers will need time to change their labeling and use up their current labels. She concluded with a reminder that this item pertains to more than cannabis sales and includes such products as clothing, lip balms, and lotions to name a few.

B3: MOS-22.2 Section 1.XX Cannabis and Cannabis-Containing Products and 2.XX Cannabis and Cannabis-Containing Products

OWM does not concur that a method of sale is necessary for this commodity. The Weights and Measures Law, Section 16. Method of Sale already exists and states that commodities in liquid form shall be sold by liquid measure or by weight, and that commodities not in liquid form shall be sold by weight, by measure or by count. It further states that the method of sale shall provide accurate and adequate quantity information that permits the buyer to make price and quantity comparisons.

Mr. Rutherford commented that the most significant issue discussed by Ms. Warfield is waiting to implement labeling requirements. He said there are no pre-printed labels in this marketplace. Mr. Sakin asked if states call products by varied terms. Mr. Rutherford replied that there is no standard terminology, and he believes that the L&R Committee should decide whether or not the word cannabis should or should not be italicized. Walt Remmert, Pennsylvania supports the item with voting status taking into consideration NIST comments. Jason Flint, New Jersey and Jimmy Cassidy, New York concur. The Committee recommends Voting status for this block.

ITEM BLOCK 4 (B4) E-COMMERCE

B4: WAM-23.1 V Section 11. Powers and Duties of the Director

Source:
NCWM Packaging and Labeling Subcommittee

Purpose:
Add e-commerce compliance to the powers and duties of the Director.

Item Under Consideration:
Amend Handbook 130, Uniform Weights and Measures Law, as follows:

Section 11. Powers and Duties of the Director

The Director shall:

. . .

(s) have the authority to employ recognized procedures and regulations designated within the Uniform E-Commerce Regulation.

Previous Action:
2023: New Item

Original Justification:
It has been suggested that if the e-commerce regulation is adopted for inclusion in NIST Handbook 130, expanding the powers and duties of the Director in the model Weights and Measures Law would be useful.

The most likely arguments against adoption of this proposal center on whether individual programs feel this section of the model law is too restrictive in defining the scope of a weights and measures program or if the membership concludes the E-commerce regulation is better published as a stand-alone NCWM standard.

Requested Status by Submitter: Voting Item

Comments in Favor:

Regulatory:
- The Committee heard from several regulators that the item was fully developed and should be a Voting item. It was also recommended that the item be blocked with OTH-22.1 E-commerce regulation.

Industry:
- Chairman Chris Guay of PALS supported the item as a Voting item and the blocking of it with OTH-22.1. He did acknowledge that some Weights and Measures Directors do not think it is necessary.

Advisory:
- Mr. David Sefcik, NIST OWM spoke from the floor to say that the item is fully developed and that he agreed with Mr. Guay that it would need to be blocked with the ecommerce regulation.

Comments Against:

Regulatory:
- The Committee heard from Mr. Tim Chesser, Arkansas that the item was unnecessary and already covered in individual state laws. Mr. Chesser also expressed concern about the lack of stakeholder feedback.

- Mr. Hal Prince, Florida also stated it was unnecessary. He recommended withdrawing the item.

Industry:
- None

Advisory:
- None

Neutral Comments:

Regulatory:
- None

Industry:
- None

Advisory:

- None

Item Development:

NCWM 2021 Interim Meeting: The Committee gave an Assigned status to this item at the 2022 Interim Meeting and believes that more outreach to online retailers is needed. The Committee is uncertain that the impacted industry has had an opportunity to review and engage in the process.

The Committee also considered adding an effective date to the proposal to address this concern but determined it would be better for PALS to reach out to retailers first and then consider the need for an effective date based on the feedback received.

The Committee replaced the original proposal with new language provided by PALS on January 9, 2022. The new language also includes a new section, "Section 11. Powers and Duties of the Director." This new section is not a priority item and must be submitted as a separate agenda item by PALS for consideration by the NCWM.

Additional recommendations include:

- reach out to all stakeholders including online retailers, producers, consumer groups, trade associations, and engage them in the PALS work.
- consider comments submitted in January by NIST OWM to the PALS Chairman and L&R Committee
- reach out to other federal agencies with authority to regulate online retailers
- broaden the definition of current section 2.12. E-commerce Consumer Commodity.
- conduct mock inspections of these e-commerce websites to help develop the item
- prepare a presentation which illustrates how to apply the requirements
- consider making the suggested amendments to section 5 "Unit Pricing Requirements for Products Offered for Sale on an E-commerce Site" outlined in the OWM analysis supporting documentation
- develop an EPO, develop a best practice guide for web design, develop a presentation on how to apply the requirements for E-commerce websites and add a section for unit pricing requirements
- consider adding an effective date to provide sufficient time for online retailers to prepare for regulation

NCWM 2023 Interim Meeting: The Committee concurred that the item was fully developed and assigned Voting status to the item and blocked it with OTH-22.1 E-commerce regulation. The Committee did consider the comments that this item was unnecessary but put it forward for a vote because more states favored it, it is only a model law and because it is fully developed.

Regional Associations' Comments:

WWMA 2022 Annual Meeting: Mr. Floren, Los Angeles County, CA questioned whether this item was necessary, but supports it moving forward if needed to support other e-commerce proposals. Mr. Kevin Schnepp, CDFA/DMS, supports this item moving forward.

The WWMA L&R Committee recommends Voting status based on the comments heard.

SWMA 2022 Annual Meeting: Tim Chesser (Arkansas) expressed that he was puzzled, he felt all of this was already covered in Handbook 130 in the Weights and Measures Law. He said all this was already addressed in Arkansas. He doesn't believe that a whole section dedicated to e-commerce is needed.

Lisa Warfield (NIST OWM) commented an additional item OTH 22.1 is under consideration which aligns with the item. Ms. Warfield agrees with Tim that this isn't needed and is more reactionary to another item that was recently adopted in the handbooks. She suggested that if it goes through, make it align with OTH 22.1 (package and labeling in the e commerce).

Committee considers this item is fully developed and recommends this moving forward with a voting status contingent upon item OTH-22.1. The Committee considers that these two items should move forward as a block and that the titles of the regulations would need to be aligned.

CWMA 2022 Interim Meeting: Chris Guay, CGGT and Chair of PALS commented this item should be subsection "s" rather than subsection "r" and notified Don Onwiler that it should be corrected prior to subsequent regional fall meetings. He indicated he believes this item is fully developed and ready for voting provided the additional e-commerce agenda item passes. Based on testimony and hearing no objections, the Committee believes this item is fully developed and ready for voting status.

NEWMA 2022 Interim Meeting: During the 2022 BEWMA Interim Meeting Lisa Warfield, NIST OWM commented that this is a new item and believes it should be assigned to PALS since it encompasses more than labeling (ex. Pricing, unit pricing and graphic illustrations). She further commented that states need to determine if there is a need to modify this section. She concluded her remarks by asking the committee to consider blocking this item with agenda item OTH-22 so they can move together. She also asked that the committee reconsider changing the title of this item to be consistent with OTH-22. The Committee recommends this item be moved to OTHER ITEMS and considered with OTH 22 .and be Assigned to PALS.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.com/publication-15 to review these documents.

B4: OTH-22.1 V Uniform E-Commerce Regulation

Source:

NCWM Packaging and Labeling Subcommittee (PALS)

Purpose:

Provide an update of the activities of PALS which works on direction from and reports to the L&R. This is to propose a new regulation for Handbook 130 covering sites and products which are sold through e-commerce.

Item Under Consideration:

Adopt a Handbook 130, Uniform Regulation for E-commerce Products, as follows:

Uniform E-commerce Regulation

1. Background

The Uniform E-commerce Regulation was adopted during the 1XXth Annual Meeting of the National Conference on Weights and Measures (NCWM) in 202X.

NCWM adopted a model e-commerce regulation to assist those states authorized to adopt such a regulation under provisions of their weights and measures laws. The customer benefit of having clear and consistent price, quantity and identity information during an e-commerce transaction should be greater confidence that a product purchased is actually the product they intended to purchase. The manufacturer benefit of this e-commerce regulation is clear expectations of what information is required to be provided on e-commerce sites offering products for sale and product information accompanying product delivery.

Nothing contained in this regulation should be construed to supersede any labeling requirement specified in federal law.

2. Status of Promulgation

The table beginning on page 6 shows the status of adoption of the Uniform E-commerce Regulation.

This regulation shall become effective and subject to enforcement on January 1, 2025.

Preamble

The purpose of this regulation is to provide accurate and adequate identity and net quantity information for products sold via e-commerce to help facilitate purchaser confidence in e-commerce purchases. This regulation establishes requirements for e-commerce sites offering products for purchase, product labeling for products sold via e-commerce and for receipts which detail the identity, quantity and price the consumer paid upon product delivery. This regulation applies to product identity, net quantity, responsible parties and price information and is not intended to apply to other product labeling or quality requirements.

Section 1. Application

This regulation shall apply to products and transactions which occur when purchasers are not present to purchase a consumer or non-consumer product in person.

This regulation specifically establishes requirements for web-based sales (including smartphone and computer applications) and other sites/programs which offer products for sale and permit customers to make purchases without being physically present to inspect and select individual products and commodities in-person. This regulation also applies to any product information which shall accompany the transactions including labeling and receipts.

This regulation shall not apply to:

(a) inner wrappings not intended to be individually sold to the customer

(b) shipping containers or wrapping used solely for the transportation of any commodities or products

(c) shipping containers and inner wrappings for products or commodities purchased in quantity by manufacturers, packers, or processors in industrial proportions, or to wholesale or retail distributors who subsequently distribute or offer for sale products and commodities

(d) auxiliary containers or outer wrappings used to deliver packages of such commodities to retail customers if such containers or wrappings bear no printed matter pertaining to any particular commodity.

Section 2. Definitions

The following definitions apply to this regulation:

2.1. Product -- An article, commodity or substance that is manufactured, grown, harvested, mined or refined for sale.

2.2. Consumer Product – A product sold or offered for sale in packaged or bulk form which is intended for personal use in a home or residence.

2.3. Non-Consumer Product -- A product sold or offered for sale which is intended for use by a business or institution customer for industrial use or wholesale distribution.

2.4. Online Marketplace – Any person or entity who operates an electronically accessed platform that includes features that allow for, facilitate, or enable sellers to engage in the sale, purchase, payment, storage, shipping or delivery of a product within the U.S., is used by sellers for such purposes, and has a contractual or similar relationship with its users governing their use of that platform to sell and purchase products.

2.5. E-commerce – The process of offering for sale, transacting sales, and delivery of consumer product(s) or non-consumer product(s) when the purchaser is not physically present at the point of purchase. E-commerce includes on-line sales made using websites and phone applications, catalog sales and sales transacted via online marketplaces by 3rd parties when the purchaser is not physically present.

2.6. E-commerce Product – A consumer product or non-consumer product offered for sale through e-commerce.

2.7. E-commerce Site – The site, program or interface through which customers make product purchases by means of e-commerce . An e-commerce site may be a manufacturer website, a retail website, an online marketplace, a delivery service site, a phone application or other interface in which the customer is physically not present to inspect and select products.

2.8. Customer – A person or entity purchasing an e-commerce product for their own use, the use of another person, or a business.

2.9 Person – The term "person" means either singular or plural and shall include any individual, partnership, company, corporation, association, or society engaged in e-commerce activity.

2.10. Package. – Except as excluded by Section 1, the term "package," whether standard package or random package, means any consumer product or non-consumer product which is:

(a) enclosed in a container or wrapped in any manner in advance of wholesale or retail sale; or

(b) whose weight, measure or count has been determined in advance of wholesale or retail sale.

2.11. E-commerce Package – Any consumer product or non-consumer product with a defined net quantity which is sold through e-commerce and is:

(a) enclosed in a container or wrapped in any manner in advance of on-line sale; or

(b) not enclosed prior to on-line sale and wrapped or packaged for shipment or delivery after sale, or

(c) not enclosed prior to on-line sale and does not require wrapping or packaging for delivery after sale.

2.12. E-commerce Standard Package – Any package sold or offered for sale via e-commerce where lots or shipments for delivery of the package of the same product have identical net content declarations.

2.13. E-commerce Random Package – Any package sold or offered for sale via e-commerce where lots or shipments for delivery of the package of the same product have varying net content declarations.

2.14. Sale from Bulk. – The term "sale from bulk" means the sale of products are not pre-packaged and where the quantity is determined at the time of sale.

2.15. E-commerce Bulk Product – A product sold or offered for sale via e-commerce where the product is not packaged at time of purchase. An e-commerce bulk product may or may not be wrapped upon its sale to facilitate shipment or delivery.

2.16. E-commerce Non-Consumer Package – Any non-consumer product that is sold or offered for sale which has been packaged prior to sale on an e-commerce site.

2.17. E-Commerce Package Label. – Any written, printed, or graphic matter affixed to, applied to, attached to, blown into, formed, molded into, embossed on, or contained within a package containing any consumer or non-consumer product for purposes of branding, identifying, or providing information with respect to the product or to the contents of the package.

2.18. E-commerce Receipt. -- A complete record of a transaction involving the purchase of one or more e-commerce products purchased at the same time from the same E-commerce site. E-commerce receipts may be either electronic or paper as described in this regulation.

2.19. SI or SI Units – SI or SI Units means the International System of Units as established in 1960 by the General Conference on Weights and Measures (CGPM) and interpreted or modified for the United States by the Secretary of Commerce

2.20. U.S. Customary Units – Units based upon the inch, foot, gallon, and the pound commonly used in the United States of America. U.S. customary units include units for weight, liquid measure, linear measure, area measure, volume measure and dry measure (see NIST Handbook 130, UPLR Section 6. Declaration of Quantity: Consumer Packages for additional information).

Section 3. Required Declarations for E-commerce Sites Offering Products for Sale

Consumer and Non-Consumer Products are being purchased through e-commerce sites whereby the customer makes purchase decisions based upon the product information provided on the website, phone application or other remote means. Because customers make e-commerce purchase decisions based on available information provided on these sites or venues, customers should expect the information provided to be sufficiently complete in order to make informed purchase decisions and accurate value comparisons. To that end, certain price and FPLA-required label information shall be provided to purchasers on the E-commerce site where a product is offered for sale. The elements of the FPLA information required by this regulation are also present in regulations promulgated by other Federal agencies such as EPA, FTC, and Department of Agriculture.

3.1. E-commerce Site Requirements for Standard Packages. – The following shall apply to e-commerce sites on which standard packages are offered for sale:

(a) Declaration of Identity. – The product declaration of identity shall appear on the e-commerce site in a conspicuous and prominent location. Wherever applicable, the product brand name or manufacturer/distributor name shall be combined with the declaration of identity. This information shall be provided separately from and in addition to any picture or image of the product (See Section 7 Declaration of Identity: E-commerce Products for additional information.)

(b) Declaration of Net Quantity. – The declaration of net quantity shall appear on the e-commerce site in a prominent location and in a conspicuous manner which clearly communicates the package net quantity. This information shall be provided separately from and in addition to any picture or image of the product. This information shall be provided in both U.S. customary and SI units for products subject to the Fair Packaging and Labeling Act or as mandated for products under other Federal regulations (See Section 6. Declaration of Quantity – E-commerce Products for additional information.)

(c) Product Price. – The price of the product shall appear on the e-commerce site in a conspicuous and prominent location. Added cost information (if any) for shipping, delivery, taxes, and other services shall be provided to the customer prior to the completion of check-out and payment.

(d) Product Photo or Visual Product Representation/Image. – The e-commerce site shall provide a photo or visual representation (image) of the product to help consumers confirm the identity of the item they intend to purchase. While a product photo or image may show certain required information, required information shall appear separately from the picture/representation. Any information provided in the picture/image shall not conflict with information required by this regulation (See Section 9. Product Photograph or Accurate Product Depiction/Representation: E-commerce Site Requirements for additional information).

(e) Brand Name or Product Manufacturer. – The e-commerce site shall provide the name of the manufacturer, distributor or the brand of any product offered for sale, where applicable (See Section 8. Declaration of Responsible Person: E-commerce Products for additional information.)

3.2. E-commerce Site Requirements for Random Packages. – The following shall apply to e-commerce sites on which random packages are offered for sale:

(a) Declaration of Identity. – The product declaration of identity shall appear on the e-commerce site in a conspicuous and prominent location. Wherever applicable, the product brand name shall be combined with the declaration of identity. This information shall be provided separately from and in addition to any picture or image of the product (See Section 7. Declaration of Identity: E-commerce Products for additional information).

(b) Unit Price. – The unit price of the product shall appear on the e-commerce site in a conspicuous and prominent location. This information shall be provided separately from and in addition to any picture or image of the product (See Section 5. Unit Pricing Requirements on E-Commerce Sites for Products Offered for Sale for additional information).

(c) Net Quantity Information. – For each product offered for sale in random packages, a range of potential product net quantities and an estimated maximum possible item net weight shall be displayed to customers on the e-commerce site in a conspicuous and prominent location. (See Section 6. Declaration of Quantity– E-commerce Products additional information).

(d) Product Price – For each product offered for sale in random packages, a range of potential product prices and an estimated maximum possible item price shall be displayed to customers on the e-commerce site in a conspicuous and prominent location. Added cost information (if any) for shipping, delivery, taxes, and other services shall be provided to the customer prior to the completion of check-out and payment.

(e) Product Photo or Visual Product Representation/Image. – The e-commerce site shall provide a photo or representative image of the product to help customers confirm the identity of the item they intend to purchase. While a product photo or representation may depict certain required information, required information shall appear separately from the picture/representation. Any information provided in the picture/product representation shall not conflict with information required by this regulation (See Section 9. Product Photograph or Accurate Product Depiction/Representation: E-commerce Site Requirements for additional information).

(f) Brand Name or Product Manufacturer. – The e-commerce site shall provide the name of the manufacturer, distributor, or the product brand name when it is different from the person or entity responsible for the website (See Section 8. Declaration of Responsible Person: E-commerce Products for additional information).

3.3. Bulk Product E-commerce Site Requirements. – The following shall apply to e-commerce sites on which products from bulk are offered for sale:

Declaration of Identity. – The bulk product declaration of identity shall appear on the e-commerce site in a conspicuous and prominent location. Brand name (if applicable) may be combined with the declaration of identity. This information shall be provided separately from and in addition to any picture or image of the bulk product (See Section 7. Declaration of Identity: E-commerce Products for additional information).

Unit Price. – The unit price of the product shall appear on the e-commerce site in a conspicuous and prominent location. This information should be provided separately from and in addition to any picture or image of the bulk product (See Section 5. Unit Pricing Requirements on E-Commerce Sites for Products Offered for Sale for additional information).

Net Quantity Information. – An estimated minimum and/or maximum possible product net quantity, if applicable to any product offered for sale from bulk, shall be provided on the e-commerce site in a conspicuous and prominent location (See Section 6. Declaration of Quantity– E-commerce Products for additional information).

Product Price – For products offered for sale limited to minimum and/or maximum per-order quantities, an estimated minimum or maximum possible product price, where applicable, shall be provided to the customer on the e-commerce site in a conspicuous and prominent location. Added cost information (if any) for shipping, delivery, taxes, and other services shall be provided to the customer prior to the completion of check out and payment.

Product Photo or Product Representation. – The e-commerce site shall provide a photo or visual representation of the bulk product to help customers confirm the identity of the item they intend to purchase. While a product photo or representation may depict certain required information, required information shall appear separately from the picture/representation. Any information provided in the picture/product representation shall not conflict with information required by this regulation (See Section 9. Product Photograph or Accurate Product Depiction/Representation: E-commerce Site Requirements for additional information).

3.4. Non-Consumer Product E-commerce Site Requirements. – The following shall apply to e-commerce sites on which non-consumer products are offered for sale:

(a) Packaged Non-Consumer E-commerce Products. – If the non-consumer product is packaged as a standard package, the requirements of Section 3.1. E-commerce Site Requirements for Standard Packages shall apply. If the non-consumer product is packaged as a random package, the requirements of Section 3.2. E-commerce Site Requirements for Random Packages shall apply.

(b) E-commerce Products Purchased from Bulk. – If the non-consumer product is not packaged at the time of purchase, the requirements for Section 3.3. Bulk Product E-commerce Site Requirements shall apply.

Section 4. Required Information for E-commerce Products Upon Delivery.

4.1. Standard Package E-commerce Delivery Requirements. – The information below shall be provided within, upon or together with each standard package delivered to/received by a customer in an e-commerce transaction. Products which are labeled to be compliant with the UPLR meet the requirements for Declaration of Identity, Net Quantity and Responsibility. Products which are not labeled for retail sale as prescribed by the UPLR shall provide the following:

(a) Declaration of Identity. – The product declaration of identity shall be prominently placed on the product package or on a label which is physically attached to product package. Although the declaration of identity may also appear on a receipt or invoice, a receipt or invoice alone is not an adequate means to provide this information.

(b) Declaration of Net Quantity – The declaration of net quantity shall be prominently placed on the product or package or on a label which is physically attached to the product package. Although the declaration of net quantity may also appear on a receipt or invoice, a receipt by itself is not an adequate means to provide this information.

(c) Declaration of Responsibility. – The declaration of responsibility, including name and address, shall be prominently placed on the product package label.

(d) Product Price. – The total price of the product shall be provided to the customer, either on a receipt or invoice or by appearing upon, within, or with the delivered standard package.

4.2. Random Package E-commerce Delivery Requirements. – The following shall apply to the information provided within, upon, or together with each random package delivered to/received by a customer in an e-commerce transaction:

(a) Declaration of Identity. – The product declaration of identity shall be prominently placed on the product package or a label attached to the product package. Where multiple products are delivered concurrently, it shall be clear which information applies to each product. Although the declaration of identity may also appear on a receipt or invoice, a receipt or invoice alone is not an adequate means to provide this information.

(b) Unit Price. – The unit price of the product shall be provided to the customer, either on a receipt or invoice, on the package label, or by other written documentation included with the delivered product and shall be in the same units of measure as displayed on the website.

(c) Net Quantity Information. – The net quantity of the product shall be prominently marked or displayed on the product, or a label attached to the package and shall be in the same units of measure as displayed on the website. Where multiple products are delivered concurrently, it shall be clear which information applies to each product. Although the declaration of net quantity may also appear on a receipt or invoice, a receipt or invoice alone is not an adequate means to provide this information.

(d) Product Price. – The price charged for the product shall be prominently marked upon the product or be recorded and displayed on documentation within the package. Where multiple products are delivered concurrently, it shall be clear which information applies to each product. The product receipt shall provide the purchaser with cost information including the cost of the product and any applicable additional charges. Although the price information may also appear on a receipt or invoice, it shall also be provided as specified above with the product package.

(e) Declaration of Responsibility. – The declaration of responsibility, including name and address, shall be conspicuously and prominently marked upon the product or package, or recorded and displayed on documentation within the package. Where multiple products are delivered concurrently, it shall be clear which information applies to each product. Although the declaration of responsibility may also appear on a receipt or invoice, a receipt or invoice alone is not an adequate means to provide this information.

4.3. Bulk Product E-commerce Delivery Requirements – The following shall apply to the information provided on or with bulk products delivered to / received by a customer in an e-commerce sale:

Declaration of Identity. – The bulk product declaration of identity shall be provided to the customer on a transaction receipt. A Declaration of Identity may also be marked upon or on written documentation attached to the bulk product, but this does not preclude it from being displayed on the receipt.

Unit Price. – The unit price of the product shall be provided to the customer on the transaction receipt. The Unit Price may also be displayed upon the product or its packaging, but this does not preclude it from being recorded on the receipt.

Declaration of Net Quantity. – The actual net quantity of the product delivered shall be provided to the customer on the transaction receipt. Actual net quantity shall be documented for the transaction as the customer was not present when the product(s) was selected. The Declaration of Net Quantity may be displayed upon the product or its packaging, but this does not preclude it from being recorded on the receipt.

Product Price. – The total price charged for the product shall be provided to the customer on the transaction receipt.

4.4. Non-consumer Product E-commerce Delivery Requirements. – The following shall apply to the information provided on or with a non-consumer product delivered to/received by a customer in an e-commerce sale:

(a) Packaged Non-Consumer E-commerce Products. – If the non-consumer product is packaged as a standard package, the requirements in Section 4.1. Standard Package E-commerce Delivery Requirements shall apply. If the non-consumer product is packaged as a random package, the requirements of Section 4.2. Random Package E-commerce Delivery Requirements shall apply.

(b) E-commerce Products Purchased from Bulk – If the non-consumer product is not packaged at the time of purchase, the requirements for Section 4.3. Bulk Product E-commerce Delivery Requirements shall apply.

Section 5. Unit Pricing Requirements on E-Commerce Sites for Products Offered for Sale

5.1. Products Subject to Unit Pricing on E-commerce Sites

(a) Unit Price Information is required for bulk products and random packages offered for sale on an e-commerce site.

(b) Unit Price Information is optional for standard packages offered for sale on e-commerce sites.

5.2 Required Unit Price Information

The Unit Price shall be consistent with the required method of sale for the product.

(b) Units of Measure. - The declaration of the unit price of a particular commodity in all package sizes offered for sale on an e-commerce site shall be uniformly and consistently expressed in terms of:

(1) Price per kilogram or 100 g, or price per pound or ounce, if the net quantity of contents of the product is in terms of weight.

(2) Price per liter or 100 mL, or price per dry quart or dry pint, if the net quantity of contents of the product is in terms of dry measure or volume.

(3) Price per liter or 100 mL, or price per gallon, quart, pint, or fluid ounce, if the net quantity of contents of the product is in terms of liquid volume.

(4) Price per individual unit or multiple units if the net quantity of contents of the product is in terms of count.

(5) Price per square meter, square decimeter, or square centimeter, or price per square yard, square foot, or square inch, if the net quantity of contents of the product is in terms of area.

(6) Price per meter, decimeter, centimeter, or price per yard, foot, 100-feet, or inch if net quantity of contents of the product is in terms of length.

(c) Exemptions – The following exemptions from unit pricing requirements above are permitted:

(1) Small Packages. – Products shall be exempt from these provisions when packaged in quantities of less than 28 g (1 oz) or 29 mL (1 fl oz) or when the total retail price is 50 cents ($0.50) or less.

(2) Single Items. – Products shall be exempt from these provisions when only one brand in only one size is offered for sale in a particular retail establishment.

(3) Infant Formula. – For "infant formula," unit price information may be based on the reconstituted volume. "Infant formula" means a food that is represented for special dietary use solely as a food for infants by reason of its simulation of human milk or suitability as a complete or partial substitute for human milk.

(4) Variety and Combination Packages. – Variety and Combination Packages as defined in Section 2.9. Combination Package and Section 2.10. Variety Package in the UPLR [see Section 5. *NOTE*] shall be exempt from these provisions.

(d) E-commerce sites shall determine the most effective units for ensuring value comparison of similar products with varying product sizes. However, unit prices (e.g., price per ounce, price per inch, etc.) shall employ consistent units of measure for similar or competing products posted on the same e-commerce site.

(e) Unit Pricing Expressions shall be listed in the nearest cent when a dollar or more. If the unit price is under a dollar, it shall be listed to the tenth of a cent or the whole cent, but both methods cannot be used simultaneously. The e-commerce site shall accurately and consistently use the same method of rounding up or down to compute the unit price to the whole cent.

(f) The unit price information shall be presented adjacent to the product price information. When present, unit price information is to be provided in a manner so that it is adjacent to all other product pricing information.

Section 5. NOTE: See NIST Handbook 130, Uniform Packaging and Labeling Regulation.

Section 6. Declaration of Quantity– E-commerce Products

6.1. E-commerce Site Requirements – Any e-commerce package offered for sale on an e-commerce site shall be displayed or represented on the e-commerce site with a separate Declaration of Quantity statement which details the quantity of product that the package contains in SI and U.S. customary units of measure and/or in count consistent with the requirements for packages intended for retail sale prescribed in the UPLR (see *Section 6. NOTE 1)* Section 6. Declaration of Quantity: Consumer Packages and Section 7. Declaration of Quantity: Non-Consumer Packages, as applicable or other existing Federal regulations for non-consumer products. The Declaration of Quantity shall be accurately displayed in relevant units to facilitate value comparison. The declaration shall not be misleading or deceptive.

6.2. E-commerce Package Requirements – E-commerce standard and random consumer packages and pre-packaged non-consumer packages upon delivery to customers shall have an accurate Declaration of Net Quantity on the package label.

6.3. E-commerce Bulk or Unpackaged Product Requirements – E-commerce bulk and non-consumer products which are not packaged prior to purchase, at the time of delivery to the customer, shall be accompanied by an accurate Declaration of Net Quantity on a printed transaction receipt. This printed receipt shall include the product identity, unit price, net quantity, and actual charged price in a clear and non-misleading manner for all bulk or non-packaged products. Electronic receipts may be used in place of paper receipts if the information required for a paper receipt is printed upon or contained in each individual bulk and/or non-packaged product. Electronic receipts may be provided in place of printed receipts if the customer specifies an electronic receipt is preferred.

6.4. Measurement Systems:--The International System of Units (SI), known as the metric system and the U.S. customary system of weights and measures are recognized as proper systems to be used in the declaration of quantity for e-commerce products. Units of both systems may be combined in a dual declaration of quantity. Numerical count is permitted for products when the product statement of identity and numerical count are fully informative of the product's contents.

6.5. Largest Whole Common Unit. – This regulation requires that the quantity declaration for similar types and sizes of products be in terms of the largest whole common unit. With respect to a particular product offered for sale, the declaration shall be in terms of the largest common whole unit of weight or measure with any remainder expressed:

(a) SI Units. – in decimal fractions of such largest whole unit.

(b) U.S. Customary Units. –

(1) in common or decimal fractions of such largest whole unit; or

(2) where appropriate, the next smaller whole unit or units with any further remainder in terms of common or decimal fractions of the smallest unit present in the quantity declaration.

6.6. Terms: Weight, Liquid Measure, Dry Measure, or Count. – The declaration of the quantity of a particular E-commerce product shall be expressed in terms of liquid measure if the commodity is liquid, in terms of dry measure if the commodity is dry, in terms of weight if the commodity is solid, semisolid, viscous, or a mixture of solid and liquid, or in terms of numerical count. However, if there exists a firmly established general consumer usage and trade custom with respect to the terms used in expressing a declaration of quantity of a particular commodity, such declaration of quantity may be expressed in its traditional terms if such traditional declaration gives accurate and adequate information as to the quantity of the commodity.

6.7. SI Units: Mass and Measure. – A declaration of quantity for an e-commerce product or package shall be expressed in units according to the Uniform Packaging and Labeling Regulation (see *Section 6. Note 1*) Sections 6.5 through 6.6.2., the applicable Uniform Regulation for the Method of Sale of Commodities (see *Section 6. Note 2*) or the applicable regulation(s) of a regulatory agency. Generally, declarations are to follow the requirements detailed below:

in units of mass shall be in terms of the kilogram, gram, or milligram;

in units of liquid measure shall be in terms of the liter or milliliter, and shall express the volume at 20 °C, except in the case of petroleum products or distilled spirits, for which the declaration shall express the volume at 15.6 °C, and except also in the case of a commodity that is normally sold and consumed while frozen, for which the declaration shall express the volume at the frozen temperature, and except also in the case of malt beverages or a commodity that is normally sold in the refrigerated state, for which the declaration shall express the volume at 4 °C;

in units of linear measure shall be in terms of the meter, centimeter, or millimeter;

in units of area measure shall be in terms of the square meter, square decimeter, square centimeter or square millimeter;

in units of volume other than liquid measure shall be in terms of the liter and milliliter, except that the terms cubic meter, cubic decimeter, and cubic centimeter will be used only when specifically designated as a method of sale;

Shall be expressed in units so that the numerical declaration is greater than the number one "1" and less than number one thousand "1000". While a common unit is required for similar products of similar size, when the product size range results in numerical declarations which are less than one or exceed 1000, then added units are permitted.

Examples:

500 g, not 0.5 kg
1.96 kg, not 1960 g
750 mL, not 0.75 L
750 mm or 75 cm, not 0.75 m

SI declarations should be shown in three digits except where the quantity is below 100 grams, milliliters, centimeters, square centimeters, or cubic centimeters where it can be shown in two digits. In either case, any final zero appearing to the right of the decimal point need not be shown; and the declaration of net quantity of contents shall not be expressed in mixed units.

Example:

1.5 kg, not 1 kg 500 g

Only those symbols as detailed in NIST Handbook 130 UPLR Section 6.5. Largest Whole Common Unit may be employed in the quantity statement on an e-commerce site or on a product package.

6.8. U.S. Customary Units: Weight and Measure. – A declaration of quantity for an e-commerce product or package shall be expressed in units according to the provisions of the Uniform Packaging and Labeling Regulation ((see *Section 6. Note 1*) **Sections 6.7. through 6.8.2., the applicable Method of Sale Regulation (**(see *Section 6. Note 2*) **as applicable, or the applicable regulation(s) of a regulatory agency. Generally, declarations are to follow the requirements detailed below**

(a) in units of weight shall be in terms of the avoirdupois pound or ounce;

(b) in units of liquid measure shall be in terms of the United States gallon of 231 cubic inches or liquid quart, liquid pint, or fluid ounce subdivisions of the gallon and shall express the volume at 68 °F, except in the case of petroleum products or distilled spirits, for which the declaration shall express the volume at 60 °F, and except also in the case of a commodity that is normally sold and consumed while frozen, for which the declaration shall express the volume at the frozen temperature, and except also in the case of a commodity that is normally sold in the refrigerated state, for which the declaration shall express the volume at 40 °F, and except also in the case of malt beverages, for which the declaration shall express the volume at 39.1 °F;

(c) in units of linear measure shall be in terms of the yard, foot, 100-foot, or inch;

(d) in units of area measure shall be in terms of the square yard, square foot, or square inch;

(e) in units of volume measure shall be in terms of the cubic yard, cubic foot, or cubic inch; and

(f) in units of dry measure, shall be in terms of the United States bushel of 2150.42 in^3, or peck, dry quart, and dry pint subdivisions of the bushel.

(g) Any generally accepted symbol and abbreviation of a unit name may be employed in the quantity statement on a package of commodity

Section 6. NOTE 1: See NIST Handbook 130, Uniform Packaging and Labeling Regulation (UPLR).

Section 6. NOTE 2: See NIST Handbook 130, Uniform Regulation for the Method of Sale of Commodities.

Section 7. Declaration of Identity: E-commerce Products

7.1. E-commerce Site Requirements – Any e-commerce product offered for sale on an e-commerce site shall be represented or displayed on the e-commerce site with a separate Declaration of Identity statement which details the specific product that the package contains in ordinary terms expressed in the English language. The declaration of identity needs to be specific enough to distinguish between similar types and varieties of products. A manufacturer brand name is not a statement of identity. The declaration shall not be misleading or deceptive.

7.2. The identity declaration shall be in terms of:

(a) the name specified in or required by any applicable federal or state law or regulation or in the absence of this;

(b) the common or usual name or, in the absence of this;

(c) the generic name or other appropriate description, including a statement of function (such as "cleaning powder").

(d) Manufacturer catalog number or part number may be provided in addition to Section 7.2(a), (b) or(c) if that number helps identify and distinguish products or commodities offered for sale.

7.3. E-Commerce Package Requirements – The same Declaration of Identity shall appear on the product label, on the product, attached to the product or within the product package in a clear and non-misleading fashion when delivered to the purchaser. The product declaration of identity shall be prominently placed on the product package or on a label which is physically attached to the product package. Although the declaration of identity may also appear on the receipt or invoice, a receipt or invoice alone is not an adequate means to provide this information for these packages.

Section 8. Declaration of Responsible Person: E-commerce Products

8.1. E-commerce Packages. – Any e-commerce package offered for sale on an e-commerce site which is not owned or operated by the person responsible for the manufacture, packaging, labeling, or distributing of the e-commerce package shall specify conspicuously either;

(a) a marking on the label of the name and address of the product manufacturer, packer, or distributor of the e-commerce package or;

(b) if there is no label, the information shall appear on documentation within the package.

The name shall be the actual corporate name, or, when not incorporated, the name under which the business is conducted.

The address shall include street address, city, state (or country if outside the United States), and ZIP Code (or the mailing code, if any, used in countries other than the United States); however, the street address may be omitted if it is listed in any readily accessible, well-known, widely published, and publicly available resource, including but not limited to a printed directory, electronic database, or website.

If a person manufactures, packs, or distributes a commodity at a place other than their principal place of business, the label may state the principal place of business in lieu of the actual place where the commodity was manufactured or packed or is to be distributed, unless such statement would be misleading. Where the commodity is not manufactured by the person whose name appears on the label, the name shall be qualified by a phrase that reveals the connection such person has with such commodity, such as "Manufactured for and packed by _____," "Distributed by _____," or any other wording of similar import that expresses the facts.

8.2. E-commerce Bulk Products and Select Random Packages. – All responsibility for bulk e-commerce products and e-commerce random packages bearing no Declaration of Responsible Person information shall be that of the person or entity responsible for the e-commerce site.

8.3. E-commerce Site Requirements. – The operator of an e-commerce site offering products for sale shall comply with at least one of the following requirements regarding each product offered for sale:

(a) **The e-commerce site shall provide the name and address of the product manufacturer, packer or distributor.**

(b) The e-commerce site shall provide the name and website address of the product manufacturer, packer, or distributor.

(c) The e-commerce site shall provide the product brand name or the name of the product manufacturer, distributor, or packer, when product manufacturer, distributor or packer address information is displayed on the package label at the time the product is delivered to the purchaser.

(d) When the e-commerce site owner or operator is the also the product manufacturer, packer or distributor, the e-commerce site shall clearly and conspicuously display its name, address and contact information on both the e-commerce site and on the transaction receipt.

Section 9. Product Photograph or Accurate Product Graphic Representation/Image: E-commerce Site Requirements

9.1. E-commerce Standard Packages. – Any e-commerce package offered for sale on an e-commerce site shall be represented on the site with a current photograph of the package offered for sale. As an alternative, a detailed and accurate photographic depiction or representation of the package may be displayed. This picture or graphical representation shall be sufficiently sized, detailed and clear to enable the customer to distinguish this package or product from similar packages including varying sizes, varieties and product functions. When a consumer can customize an e-commerce package, a photographic representation of the customized product can be provided in addition to the required pre-customized product.

9.2. E-commerce Random Packages. – E-commerce random products offered for sale on an e-commerce site shall be accompanied on the site by a representative picture or photographic depiction of product (packaged or unpackaged) which is being offered for sale. This picture or photographic depiction shall be sufficiently sized, detailed, and clear to enable the customer to see the product and the pictured item shall be representative of the product being offered for sale. When a consumer can customize an e-commerce random package, a photographic representation of the customized product can be provided in addition to the required pre-customized product.

9.3. E-commerce Bulk Products and Select Random Packages. – Bulk products offered for sale on an E-commerce site shall be accompanied on the site by a representative picture or photographic depiction of the unpackaged product which is being offered for sale. Products packaged in random packages shall be displayed on the site with a representative depiction of a representative package, a clear and conspicuous statement explaining that packaged products are of random quantity, and instructions to customers regarding the means to specify a maximum or minimum package quantity in ordering and purchasing the product. The picture(s) or photographic depiction(s) shall be sufficiently sized, detailed, and clear to enable the customer to see the product and the pictured item shall be representative of the product being offered for sale. When a consumer can customize bulk or random package, a photographic representation of the customized product can be provided in addition to the required pre-customized product.

9.4. E-commerce Non-Consumer Packages. – Non-consumer products offered for sale on an e-commerce site shall be accompanied on the site by a representative picture or photographic depiction of the product which is being offered for sale. This picture or photographic depictions shall be sufficiently sized, detailed, and clear to enable the customer to see the product and the pictured item shall be representative of the product being offered for sale. When a consumer can customize an non-consumer package, a photographic representation of the customized product can be provided in addition to the required pre-customized product.

9.5. Pictures on Receipts: Transaction receipts are not required to provide pictures or photographic depictions

Section 10. Prominence and Placement of Required Information on E-commerce Sites: Offering E-commerce Products for Sale

10.1. General Requirements. – All information required to appear on the e-commerce site which offers products for sale shall appear thereon in the English language and shall be prominent, definite, plain, and conspicuous as to size and style of letters and numbers and as to color of letters and numbers in contrast to color of background. Any required information that is either in hand lettering or hand script shall be entirely clear and equal to printing in legibility.

(a) Location. – The required e-commerce site declarations below shall be present in the top 50 % the screen in which the product is offered for sale:

(1) identity;

(2) net quantity;

(3) product price;

(4) brand or manufacturer name; and

(5) package picture or photographic representation/depiction.

(b) Style of Type or Lettering – The required e-commerce site declarations shall be in such a style of type or lettering as to be boldly, clearly, and conspicuously presented with respect to other type, lettering, or graphic material on the screen.

(c) Color Contrast. – The required e-commerce site declarations shall be in a color that contrasts conspicuously with its background.

(d) Package Picture or Photographic Representation. – The product picture or photographic depiction shall be in the actual colors of the package or product. Slight variations in color shading are acceptable.

10.2. Combined Declarations of Required Information. – One or more of the required e-commerce site declarations can be combined if the resulting statement is clear and not misleading. This shall not apply to product photograph or photographic representation. Combined declarations shall be of a consistent size same size and font, excepting the product price which may be in a larger size and a different font.

(a) Combined Declarations of Required Information – The declarations of identity, net quantity, product price and/or brand or manufacturer name can be combined into a single statement on an e-commerce site provided the information is clear and not misleading. A combined statement may appear on a single line or multiple lines as illustrated below:

Examples:

1 kg (2.2 lb) Brand X Laundry Detergent $4.99

Brand X
Laundry Detergent
1 kg (2.2 lb)
$4.99

(b) Free Area – The area surrounding a required individual or a combined declaration on an e-commerce site shall be free of printed information:

(1) above and below, by a space equal to at least the height of the lettering in the declaration; and

(2) to the left and right, by a space at least equal to twice the width of the letter "N" of the style and size of type.

Section 11. Prominence and Placement: Delivered E-commerce Packages, Products and Receipts

11.1. General Requirements – All information required to appear on an e-commerce package, product, or receipt shall appear thereon in the English language and shall be prominent, definite, plain, and conspicuous as to size and style of letters and numbers and as to color of letters and numbers in contrast to color of background. Any required information that is either in hand lettering or hand script shall be entirely clear and equal to printing in legibility.

11.2. Packages Intended for Sale in Retail Locations–A package properly labeled to comply with the retail shelf requirements of the UPLR will also comply with the e-commerce package label requirement.

11.3. Orientation of Required Declarations. – The required declarations on packages, products, or receipts shall be presented in such a manner as to be generally consistent to the orientation of the label or package.

Section 12. Effective Date

This regulation shall become effective on _____, 20__.

Given under my hand and the seal of my office in the city of _____ on this _____ day of _____, 20__.

Signed _____

Comments in Favor:

Regulatory:

- Mr. Hal Prince, Florida who serves on PALS rose to speak on behalf of the state of Florida. He stated that this item should move forward as a Voting item there are safeguards with the effective date allowing plenty of time to address any issues that may arise.

- Mr. John McGuire, New Jersey, also part of PALS rose on behalf of the state of New Jersey to support this item.

- Mr. Doug Musick, Kansas supported this item and the work put into it.

- Mr. Kevin Schnepp, California stated he believes this item is fully developed and recommends this as a voting.

- Mr. Doug Rathbun, Illinois speaking on behalf of the state of Illinois supported this as a voting item and recognized PALS for their work.

- Mr. Kurt Floren, County of Los Angeles rose in support of the item.

Industry:

- Mr. Chris Guay, PALS Chair provided an update and some perspective. He informed the Committee that PALS totally redid the definitions section and general audit of the handbooks. PALS conducted outreach to trade associations and manufactures, FMI, etc. through PALS not the conference. The comments received were incorporated and very helpful.

  He stated that the Subcommittee believes its fully developed and ready for a vote as there are no outstanding technical developments, just a few minor edits should be considered.

Advisory:

- Mr. David Sefcik, NIST OWM, supported this item but noted it was unusual that an item like this would receive so little comment. He hoped for a regulatory critical review. Note: Chairman Rathbun asked Mr. Guay if there were comments and Mr. Guay stated that they were and would be submitted to the Committee after the hearing.

Comments Against:

Regulatory:

- Mr. Tim Chesser, Arkansas expressed concerns with the item moving forward as a Voting item stating that he understood the need for this regulation, but enforcing could be a problem, as the science in not there. He posed questions about 3rd party site operators (wholesalers, resellers) and recommended that the item be assigned Informational status to gather more comments from stakeholders.

Industry:

- None

Advisory:

- None

Neutral Comments:

Regulatory:

- None

Industry:

- None

Advisory:

- None

Item Development:

NCWM 2021 Interim Meeting: The Committee gave an Assigned status to this item at the 2022 Interim Meeting and believes that more outreach to online retailers is needed. The Committee is uncertain that the impacted industry has had an opportunity to review and engage in the process.

The Committee also considered adding an effective date to the proposal to address this concern but determined it would be better for PALS to reach out to retailers first and then consider the need for an effective date based on the feedback received.

The Committee replaced the original proposal with new language provided by PALS on January 9, 2022. The new language also includes a new section, "Section 11. Powers and Duties of the Director." This new section is not a priority item and must be submitted as a separate agenda item by PALS for consideration by the NCWM.

Additional recommendations include:

- reach out to all stakeholders including online retailers, producers, consumer groups, trade associations, and engage them in the PALS work.
- consider comments submitted in January by NIST OWM to the PALS Chairman and L&R Committee
- reach out to other federal agencies with authority to regulate online retailers.
- broaden the definition of current section 2.12. E-commerce Consumer Commodity.
- conduct mock inspections of these e-commerce websites to help develop the item.
- prepare a presentation which illustrates how to apply the requirements.
- consider making the suggested amendments to section 5 "Unit Pricing Requirements for Products Offered for Sale on an E-commerce Site" outlined in the OWM analysis supporting documentation.
- develop an EPO, develop a best practice guide for web design, develop a presentation on how to apply the requirements for E-commerce websites and add a section for unit pricing requirements.
- consider adding an effective date to provide sufficient time for online retailers to prepare for regulation.

NCWM 2022 Annual Meeting: The Committee heard from Chris Guay, Chairman of the PALS on the plan to address the recommendations the Committee made at the 2022 Interim meeting to further develop the item.

Weights and Measures Law, Section 11. Powers and Duties was added to the original proposal, but in accordance with NCWM policies, the Chairman of the PALS was informed it must be submitted on a NCWM Form 15 to be considered. It will not be considered with this item but, if submitted on a NCWM Form 15 it will be considered as a separate item.

NCWM 2023 Interim Meeting: The Committee heard support for moving this item forward as a Voting item and believing it is fully developed assigned Voting status to it. The Committee also Blocked it with WAM -23.1.

The Committee accepted changes submitted by PALS Chair Chris Guay and editorial changes from OWM after the NCWM 2023 Interim Meeting.

With the adoption of the E-Commerce regulation, NIST notified the Committee that a modification to Handbook 130 was needed to I. Introduction, Section H. Effective Enforcement Dates of Regulations (effective and subject to enforcement on January 1, 2025). The Committee reviewed the proposed changes and concurred that this was an editorial change that should be done by NIST.

Regional Associations' Comments:

WWMA 2022 Annual Meeting: The WWMA L&R Committee did not solicit comments on this item, and recommends this item continues as assigned to the PALS.

SWMA 2022 Annual Meeting: No comments were heard; submitter was not available.
The Committee recommends this item remain Assigned.

CWMA 2022 Interim Meeting:
Chris Guay, PALS commented the version included in the L&R agenda is the current version. Any revisions from the four regions will be made and will be available in Publication 15 prior to the 2023 NCWM Interim Meeting. He reviewed the changes that had been made since the last version of the item including new definitions, table of contents, and proposed effective dates. Mr. Guay believes the item has been fully developed and pending any substantive changes from the regions it is ready for voting status. Craig Van Buren, Michigan commented he supports the item moving forward as a voting item and supports its content. Doug Musick, Kansas supports the item, but he isn't sure there should be a distinction between larger and smaller companies for an implementation date. Ivan Hankins, Iowa; Craig Van Buren, Michigan, and Doug Rathbun, Illinois supports the item moving forward with voting status. The Committee believes this item is fully developed and should be given Informational status for industry to have ample opportunity to provide input

NEWMA 2022 Interim Meeting: No Comments were heard. The Committee recommends the item remain Assigned.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.com/publication-15 to review these documents.

ITEM BLOCK 6 (B6) TRANSMISSION FLUID

Source:
Fuels and Lubricants Subcommittee (Note: originally submitted by Missouri Department of Agriculture)

Purpose:
Protect consumers by providing a cautionary statement of package labels of obsolete transmission fluids.

B6: MOS-21.1. A Section 2.36.2. Labeling and Identification of Transmission Fluid

Item Under Consideration:

Amend Handbook 130, Uniform Regulation for the Method of Sale of Commodities, as follows:

2.36.2. Labeling and Identification of Transmission Fluid. – Transmission fluid shall be labeled or identified as described below.

(Added 2017)

2.36.2.1. Container Labeling. – The label on a container of transmission fluid shall not contain any information that is false or misleading. Containers include bottles, cans, multi-quart or liter containers, pails, kegs, drums, and intermediate bulk containers (IBCs). In addition, each container of transmission fluid shall be labeled with the following:

the brand name;

the name and place of business of the manufacturer, packer, seller, or distributor.

the words "Transmission Fluid," which may be incorporated into a more specific description of transmission type such as "Automatic Transmission Fluid" or "Continuously Variable Transmission Fluid".

the primary performance claim or claims met by the fluid and reference to where any supplemental claims may be viewed (for example, website reference). Performance claims include but are not limited to those set by original equipment manufacturers and standards setting organizations such as SAE and JASO and are acknowledged by reference; and

an accurate statement of the quantity of the contents in terms of liquid measure.

Any obsolete equipment manufacturer specifications shall be clearly identified as "obsolete" and accompanied by the following cautionary statement on the principal display in accordance with the Uniform Packaging and Labeling Regulation, Section 8. Prominence and Placement: Consumer Packages and Section 9. Prominence and Placement: Non-Consumer Packages. Caution: Some of the specifications are no longer deemed active by the original equipment manufacturer. Significant harm to the transmission is possible when using in applications in which it is not intended. Always refer to your vehicle owner's manual for proper transmission fluids.

The above ~~warning~~ cautionary statement is not required if the fluid claims to meet current original equipment manufacturer's specifications and refers to thereby preceding specifications

(Added 20XX)

(Added 2017 **and Amended 20XX**)

B6: FLR-21.2. A Section 3.14.1. Labeling and Identification of Transmission Fluid

Item Under Consideration:

Amend Handbook 130, Uniform Fuels and Automotive Lubricants Regulation, as follows.

3.14.1. Labeling and Identification of Transmission Fluid. – Transmission fluid shall be labeled or identified as described below

(Added 2017)

3.14.1.1. Container Labeling. – The label on a container of transmission fluid shall not contain any information that is false or misleading. Containers include bottles, cans, multi-quart or liter containers, pails, kegs, drums, and intermediate bulk containers (IBCs). In addition, each container of transmission fluid shall be labeled with the following:

(a) the brand name;

(b) the name and place of business of the manufacturer, packer, seller, or distributor;

(c) the words "Transmission Fluid," which may be incorporated into a more specific description of transmission type such as "Automatic Transmission Fluid" or "Continuously Variable Transmission Fluid";

(d) the primary performance claim or claims met by the fluid and reference to where any supplemental claims may be viewed (e.g., website reference). Performance claims include but are not limited to those set by original equipment manufacturers and standards setting organizations such as SAE and JASO and are acknowledged by reference; and

(e) an accurate statement of the quantity of the contents in terms of liquid measure.

(f) **Any obsolete equipment manufacturer specifications shall be clearly identified as "obsolete" and accompanied by the following cautionary statement on the principal display panel in accordance with the Uniform Packaging and Labeling Regulation, Section 8. Prominence and Placement: Consumer Packages and Section 9. Prominence and Placement: Non-Consumer Packages.**

Caution: Some of the specifications are no longer deemed active by the original equipment manufacturer. Significant harm to the transmission is possible when using in applications in which it is not intended. Always refer to your vehicle owner's manual for proper transmission fluids.

The above cautionary statement is not required if the fluid claims to meet current original equipment manufacturer's specifications and refers to thereby preceding specifications

(Added 20XX)

(Amended 2017 **and 20XX**)

Previous Action:

2021: Assigned – Fuels and Lubricants Subcommittee

2022: Assigned – Fuels and Lubricants Subcommittee

Original Justification:

Cautionary statements regarding obsolete products are currently required for tractor hydraulic fluids and are under consideration for motor oil. A cautionary statement and its position on the product label are currently not required for Transmission fluid in either the Method of Sale, or Fuels and Lubricants Regulations. This proposal will protect consumers by ensuring they are informed when purchasing transmission fluids.

The submitter acknowledged that there may be argument that there is not sufficient space on the front package label for a cautionary statement.

Comments in Favor:

Regulatory:

- Ms. Vanessa Benchea FALS Chair updated the group that FALS had reached an agreement that designating transmission fluid as obsolete is impractical. They recommended that the original approach should not be pursued. Instead, explore advising the checking of automobile owner manuals for suggested transmission fluid use. The Chair requested that the item continue to be assigned to FALS.

Industry:

- None

Advisory:

- None

Comments Against:

Regulatory:
- None

Industry:
- None

Advisory:
- None

Neutral Comments:

Regulatory:
- None

Industry:
- None

Advisory:
- None

Item Development:

NCWM 2021 Interim Meeting: The Committee reviewed the following item for consideration in NCWM Publication 15 (2021):

(e) **Any obsolete equipment manufacturer specifications shall be clearly identified as "obsolete" and accompanied by the following warning on the principal display panel in clearly legible font size and color as stated in Uniform Packaging and Labeling Regulation 8.2.2.:**
Caution: Some of the specifications are no longer deemed active by the original equipment manufacturer. Significant harm to the Transmission is possible when using in applications in which it is not intended. Always refer to your vehicle owner's manual for proper transmission fluids.

The above warning is not required if the fluid claims to meet current original equipment manufacturer's specifications and refers to thereby preceding specifications

(Added 20XX)

It was agreed by the Committee that this language should be identical to the language that was just voted in at the 2020 NCWM Annual Meeting within Item Block 2. Tractor Hydraulic Fluid.

The Committee provided this a status of Assigned and would like FALS to further evaluate with recommendations that Ms. Johnson provides. The Committee would like FALS to review the language to see if this product includes consumer and non-consumer type packaging. Many spoke in support of how this item will be developed through FALS.

NCWM 2021 Annual Meeting: No action taken by the Committee.

NCWM 2022 Interim Meeting: Committee assigned the item to FALS.

NCWM 2022 Annual Meeting: The Committee supports keeping this item as assigned to FALS with the support and understanding that they would seek the necessary expertise to fully develop this item.

NCWM 2023 Interim Meeting: The Committee agreed with the recommendation of the FALS Subcommittee and designated the item Assigned and it continues to be assigned to FALS.

Regional Associations' Comments:

WWMA 2022 Annual Meeting: The WWMA L&R Committee did not solicit comments on this item, and recommends this item continue as assigned to FALS and thanks the subcommittee for their support.

The WWMA L&R Committee recommend as an assigned item on the NCWM Agenda

SWMA 2022 Annual Meeting: No comments were heard on this item.

The Committee recommends this item remain in the Assigned Status.

CWMA 2022 Interim Meeting: Kevin Upschulte, Missouri commented that the original intent of this item was to define products in the marketplace that were obsolete. The focus of the ATF work group has shifted to develop language for obsolete lubricants that will appear on ATF containers. Mr. Upschulte believes Assigned status is appropriate for further development. The Committee concurs.

NEWMA 2022 Interim Meeting: Chair Sakin commented that Joanna Johnson, Automotive Oil Change Association submitted an email indicating the item is still being developed, and she recommends it remain an Assigned agenda item.

Additional letters, presentation and data may have been submitted for consideration with this item. Please refer to https://www.ncwm.com/publication-15 to review these documents.

Mr. Doug Rathbun, Illinois | Committee Chair
Mr. Mike Brooks, Arizona | Vice-Chair
Mr. Tory Brewer, West Virginia | Member
Mr. Mauricio Mejia, Florida | Member
Mr. Walter Remmert, Pennsylvania | Member
Mr. Prentiss Searles, American Petroleum Institute | AMC Representative
Mr. Rowan Hemsing, Measurement Canada | Canadian Technical Advisor
Mr. David Sefcik, NIST OWM | NIST Technical Advisor
Ms. Lisa Warfield, NIST OWM | NIST Technical Advisor
Mr. Constantine Cotsoradis, NCWM | Committee Coordinator

Laws and Regulations Committee